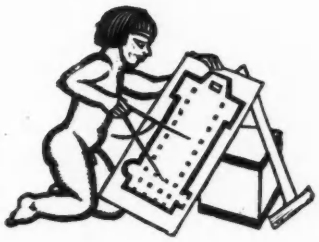
THE ARCHITECTS' JOURNAL



WEDNESDAY, JULY 2, 1930

A CASE OF REFLECTED LIGHT

Goldberg and Another v. *Waite and Waite, architects.*
Chancery Division. Before Mr. Justice Bennett.

For the Plaintiffs — **For the Defendants**

Expert Witnesses

P. J. Waldram. — *J. Swarbrick.*

Counsel

Mr. Swords, K.C., and Mr. Belsher. — *Hon. Stafford Cripps, K.C., and Mr. H. C. Nesbitt.*

SO much litigation has already been occasioned by disputes concerning "ancient lights" that one shudders at the prospect of a new factor being introduced which would immensely increase the number of such cases brought before the courts. Learned counsel may argue for days concerning the incidence of *direct* light upon buildings, and yet fail to agree upon the correct interpretation of the facts brought to their notice, so what will be the confusion when they are called upon to discuss the still more difficult problem of *reflected* light?

It is a matter of interest both to architects and building owners that recently a dispute concerning reflected light has been brought into court and an important judgment pronounced.

In our issue for June 11 we published a summary of the evidence given in the case *Goldberg and Another* v. *Waite and Waite*. In view of the fact that this is the only case in which a definite judgment has been given regarding the interpretation of the "Prescription Act" in respect of reflected light, as opposed to light received directly from the sky, it is quite clear that it will be, at all events for some time, the leading case relating to this subject.

In this case the plaintiffs made their claim in respect of the obstruction of two windows at the back of a house in Great Russell Street. Until the month of May, 1927, light was admitted to these windows over an oldish building known as Bedford Court Mansions, which was distant from the face of the windows some 37 feet. The height of Bedford Court Mansions from the ground level to the roof is 87 feet. In May, 1927, the defendants began to build upon a site, including a garden, situated between the plaintiff's premises and the Mansions, and immediately questions arose between the parties with regard to the alleged obstruction of light.

It was not disputed that a considerable amount of light formerly coming through the windows of the two rooms particularly in question was reflected from the walls of Bedford Court Mansions, walls which were built of gault bricks, affording a very good reflecting surface.

In this particular case the plaintiffs were able to prove to the satisfaction of the judge that, owing to the obstruction of light, the rental value of their premises was diminished by £15 per annum. The question was whether defendants could be held answerable for commensurate damages.

Mr. Justice Bennett was, in fact, required to decide whether a right to reflected light can be acquired by prescription. He pronounced the opinion that "if such a right were granted, it would seem that the owner of the dominant tenement would be entitled to obtain an injunction against the owner of the wall, being the servient tenement, from growing creepers upon the wall which would diminish the reflective capacity of the wall, or from painting the wall with a colour which made it less valuable as a reflecting medium, or from pulling down a wall, supposing it to be made of gault bricks, which are a good reflecting material, and substituting for those bricks some bricks which were less valuable as a reflecting medium." In the absence of any authority, he declined to decide for the first time that an easement for light by reflection can be acquired under the Prescription Act, and he therefore dismissed the action with costs.

If the decision had been otherwise, it would have opened the door to endless litigation. Every time a stucco façade was replaced by one of brick, even if the latter were no taller than its predecessor, the occupants of the buildings at the other side of the street would have a right to object. While approving Mr. Justice Bennett's verdict, we may yet be grateful to the plaintiffs for having had the courage to put the issue to the test.



INDIA'S NEW HOME IN LONDON

On Tuesday next, July 8, the King will formally open India House, Aldwych, W.C., the new headquarters of the High Commissioner for India.

The main entrance has pillars on either side, supported and crowned, respectively, by carved elephants' heads and tigers. Above the doorway is a carved crown and star. On the façade also are a row of gilt and coloured plaques of carven stone bearing the crests of the twelve provinces of India, and a frieze inscribed with Hindu and English characters indicating the purpose of the building.

As much as practicable of the material used in the ornamentation and construction of the building has been brought over from India. Sir Herbert Baker and A. T. Scott were the architects.

NEWS & TOPICS



Sir Mervyn Edmund Macartney, F.S.A., F.R.I.B.A., architect to the Dean and Chapter of St. Paul's Cathedral since 1906, knighted upon the occasion of the reopening of the Cathedral, last week.

ARCHITECTURE IN THE PUBLIC SCHOOLS

THE teaching of architecture in the schools is one of the most important objects to which educationists can address themselves, and it was with particular interest that I read the report of the joint conference between the Association of Headmasters of Secondary Schools in Essex and the West Essex Chapter of the Essex, Cambridge and Herts. Society of Architects, which was held recently in order to discuss this burning question. Sir Charles Nicholson, in opening the discussion, remarked that the idea of treating architecture as a school subject is comparatively new. So it is. I find that on the occasions when I am privileged to meet representatives of the rising generation of boys being educated at the Public Schools, they show an interest in architecture such as was by no means common among us in my own schooldays. The desire to learn about buildings is certainly present, and our schoolmasters would be losing a great opportunity if they failed to take advantage of this healthy curiosity concerning an art possessing such a great intellectual range and content as does that of architecture.

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Unfortunately the boys are often given much too restricted a notion concerning the nature of style in architecture. It is largely due to Ruskin's influence that for very many schoolmasters "architecture" is almost synonymous with "mediæval church architecture." With a high sense of enthusiasm the conscientious usher will take the boys on a pilgrimage to the parish church. The dates and styles are all noted: how the nave was "Early English," the aisles were "Decorated," and how the chancel had incontinently blossomed into the "Perpendicular." This is well and good. But it would show an even greater appreciation of architecture if the students were invited to examine the streets of the nearest town, to exercise their critical intelligence not upon the archæological aspects of one particular type of building, but upon the designs of all buildings, including the most modern ones. The choice of architectural books, too, is very important; but in this respect excellent advice is available. It would be difficult to decide what place, if any, architecture should have in the curriculum of the schools. Is it too much to suggest that an hour a week in the higher forms should be devoted to this subject?

CREAMING THE VICTORIANS

Although we may not all be aware of it, it is certain that just now we are creaming the Victorians. I did not see the Ascot frocks except in the pictures of that sartorial "come back." I went West instead and studied the gardens of Madresfield Court, which were opened to the public for a charity's sake. The Beauchamp mansion has a narrow moat, out of which the mediæval buttressed walls rise for a few feet; most of the building is Gothic Revival, in the hard brick and stone manner of 1860. The gardens appear to have been remodelled about the same time, and they are a delightful medley of formalism and frolic.

*

I looked over step and terrace between classic vases direct to a hayfield and thence to Bredon Hill, and slipt through a yew hedge, punctuated with Roman Emperors, immediately into a vagrant path ragged with weeds; then crossed an avenue like a Tee-square edge, passed through a piece of orchard drifted high with moon daisies, and found myself in the Clipt Close of the Garden of the Peacocks, whence it was but a step to the strict order of the cabbage and the bean. At one point I felt it was all a design, like strawberries and cream; at another, that it was a delightful accretion, like boiled eggs, watercress, jam and shrimps. But the character of the whole was undeniably Victorian.

WATER-ROADS

Mr. A. P. Herbert's novel of canal life is a reminder of this neglected form of transport. It seems a peculiar thing to have to suggest that we should attempt to remove the congestion on a vast network of roads upon which we are spending millions of money, by making use of another network of waterways which cost us very little, yet I have heard this suggestion of Sir Frank Baines described as ingenious, as though the idea of canals carrying goods from place to place were novel and strange. Actually, these waterways are capable of taking a continuous stream of traffic night and day. They are roads—vibrationless and inexpensively maintained roads—not one jot less efficient for being comparatively slow and exceedingly beautiful.

MALVERN HILLS STILL IN DANGER

Not only are the sides of this noble range being carried away to form aggregate and road metal, but the shape of the hills is being altered by the quarrying. Wherever the skyline has been jagged, the grandeur of the range falls away, as any person of culture can see. I think, however, it takes an architect to analyse the disturbing effect of those quarries which come close to the skyline without actually "breaking" it—just as skylights or dormer windows too near a roof ridge destroy the sense of security, so where the verdure is narrowed to a thin strip round the uncovered stone, the serenity and feeling of rest depart from the hills.

THE TRANSLATION OF FOREIGN ARCHITECTURAL BOOKS

The translation of architectural books is a fairly difficult matter, owing not only to the limited public but to the technical nature of these works, for which there is a natural dearth of expert translators. It is lucky for us that the photograph serves us nearly as well as words, and in this we are in a happier position than the doctors or the engineers. The formation, by the Association of Special Libraries and Information Bureaux, of a Panel of expert translators should have its uses for us in a small way, for there must be a mass of contemporaneous and past literature published abroad that would do us a deal of good could we but read it. We do not, for instance, read much of German contemporary architectural literature, and still less of Scandinavian, and our photographs are only two-thirds of the story, I feel sure.

WELWYN'S TENTH BIRTHDAY

The last child of his ideals that Ebenezer Howard lived to see born has just celebrated its tenth birthday, by the unveiling, on a central site at Welwyn, of a memorial to its founder. Welwyn, although its inhabitants already number nine thousand, belongs to the future; but the future also belongs to Welwyn, for to the limits of its confines in space represented by many acres, and in time by nine hundred and ninety-nine years, its destiny has been



In Provence : Drawn in pen-and-ink by Leonard Squirrell, R.E.

decided by its architects and its lawyers. Its architects have decreed that here only, on the east side of the railway, shall Welwyn's industrial activities have being; here and here the homes of its artisans; here and here its residential quarters, recreation grounds, shops and public gardens; and here, surrounding its central *place*, its banks, hotels, and important public buildings. There are to be no afterthoughts and makeshift expedients at Welwyn such as mar towns that grow by force of circumstances. By the devices of lawyers all tenures are leasehold, and for nine hundred and ninety-nine years Welwyn, in fact as well as in spirit, will belong to its City Fathers—now represented by the Directors of the Company. Private enterprise, which may at any time within the next thousand years seek to trespass upon common enjoyment of life—if only with an unruly chicken-house or an advertisement hoarding—will be discouraged with the gracious words—" Oh no, you don't."

THE PICTORIAL ART OF LEONARD SQUIRRELL

The exhibition of drawings and paintings is, in these days of enterprise and activity in all forms of creative work, an increasingly frequent event. The media and technique now in employment are almost as varied as the subjects chosen. Presented with such a bewildering pageant of pictorial art, even the picture-loving public is doubtless finding it difficult to differentiate between what is great art, what is only moderately good, and what is at present merely experimental. Among the many artists of the day there are some who have not yet received the appreciation they deserve, but who will, without doubt, be recorded in the future as being among the great painters of this day. Leonard Squirrell, R.E., is certainly one.

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A quiet, retiring, but persevering worker, he is steadily pursuing his way towards some work of tremendous importance. In even his smallest production the distinguishing qualities of power, as well as facility, are obvious. In his monochrome work especially, viz., his line and wash drawings, his etchings and aquatints, may be noted those particular characteristics of tonal depth and breadth of treatment—the latter very difficult of attainment in etching—which mark the work of the great English aquarellists and Dutch etchers of the past. As may be seen at the present exhibition of his work at Ipswich, Mr. Squirrell has not only admittedly derived inspiration from Cotman, Muller, Rembrandt, Shotter Boys and others, he possesses innately much of the bigness of outlook which has left them as landmarks along the great road of pictorial art. It seems also that the power which they possessed to make use of various media with equal facility has descended upon him.

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As a worker in pastel—a medium that has lately come into prominence again—his productions are perhaps more remarkable than any which have been exhibited since the revival of its popularity. Among his aquatints, his recent work, " Fletcher's Mill, Wrentham "—on view at the exhibition at the Royal Institute Galleries, now being held by the Society of Graphic Arts—is wonderfully fine, both in design and execution. Of his lately developed line and wash drawings, two splendid examples are to be seen in the Black-and-White Room at this year's R.A. Exhibition. His pen-and-ink illustrations, of which one of a little set of Provence is here reproduced, are really a most illuminating lesson upon how this medium may be used to illustrate, in a simple way, devoid of mannerisms, subjects of architectural interest.

ODD AND EVEN DATES

The A.A. are erecting a new type of road sign which bids fair to drive any type of motorist off the roads entirely. On the top section of the sign appears the word " Unilateral." Not content with this, there follows below the motto, " When the dates are even, please pull up this side." On the other side of the road is the same thing, only " — odd — ". The idea is that cars stopping by the pavement shall be concentrated on one side of the road, so that there will be greater freedom for traffic on the remaining width, and I have no doubt that it is a very good idea, and a successful one. But the complication it adds to the already highly specialized science of driving a car within the law of signs and lines and knobs and traps is more than my poor brain can cope with. Time was when any care-free man could drive a car, looking at the pleasant things he passed by. That time is past. Not only have you to know a hundred regulations, but of all things forgettable—the date.

ASTRAGAL

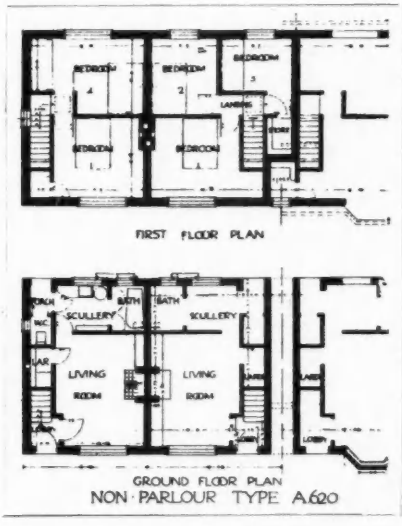
A block of six houses on Queen's Drive, near Mill Bank, Larkhill estate.



The walls are of local rustic bricks, and the roofs are covered with tiles.

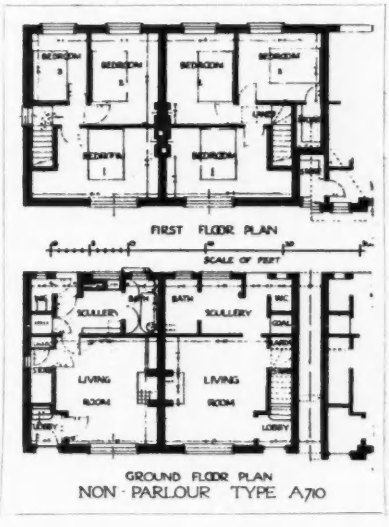
CITY OF LIVERPOOL HOUSING SCHEMES

DESIGNED BY L. H. KEAY
(Director of Housing)



OUTSIDE the activities of the London County Council, the City of Liverpool claims to have accomplished greater work in connection with housing than any other English local authority. Whilst the number of houses erected since the war is less than that erected in the City of Birmingham, Liverpool

Ground- and first-floor plans of two of the most recent types of non-parlour house. These houses are among the smallest types built by the Corporation, but are complete with the usual equipment provided in the larger houses. Electric light and a domestic hot-water supply are installed in each house.





A block of three houses at the junction of Queen's Drive and Mill Bank, Larkhill estate. All houses on important thoroughfares are connected by wing walls, as shown on the left of the illustration. This ensures privacy for the gardens and screens the clothes when exposed for drying. These wing walls take the place of wooden fences. Privet will be planted to form the front hedge.

has for many years been the pioneer city, particularly in respect of the clearance of unhealthy areas. Prior to 1919, no less than 2,895 dwellings in the central areas of the city had been provided.

In the more recent work on the various estates, particular care has been bestowed on the preparation of the layouts, and in designing the houses the best local traditions have been followed. Since 1919, 19,300 houses have been erected, and during the period October 1, 1926, to September 30, 1929, 6,029 houses were actually completed.

In addition to the erection of self-contained cottages, considerable progress is being made with the erection of tenements in connection with slum-clearance schemes. Two typical schemes are Holly St. and Burlington St.

Two unhealthy areas of approximately 8 and 7½ acres of land are now being replanned, and it is hoped to commence work at an early date.



Shops at Broadway, Norris Green estate. The projecting bay was provided to mask the difference in the first-floor levels of the shops.

A particularly interesting feature of the scheme is the shopping centre on the Norris Green estate (see illustration below). The Corporation did not restrict the design of the shop fronts, but insisted on a uniformity of lettering on the fascia of the verandah and of the colour and material of the sun blinds.

The housing department is in charge of the director of housing, Mr. L. H. Keay, F.R.I.B.A., who has had previous municipal experience at Birmingham and Norwich. The department is entirely self-contained, and as such is the largest in the country, the whole of the layouts of estates, including road works, sewerage, erection of houses, shops, etc., management, lettings and maintenance being under the supervision of the director.



City of Liverpool Housing Schemes.] [*By L. H. Keay.*

The Shopping Centre, on the Norris Green estate. The verandah runs completely round the arcade, and enables customers to walk under cover to any of the twenty-five shops in the crescent. It does not, however, affect the natural lighting of the shops.



A view of Mather Avenue, Springwood estate, looking across the square. Every effort has been made to preserve the fine trees growing on many portions of this estate, and a large area of land has been set apart as a public open space and recreation ground.



Queen's Drive, opposite Derby Lane, on the Knotty Ash estate. A view looking into the square. For typical plans, see page 7.



City of Liverpool Housing Schemes.] [*By L. H. Keay.*

A group of houses, Norris Green estate. In preparing the layout special care was again taken to retain the groups of trees, of which there are but few on this estate, which is the largest to be developed by the Corporation.



A view of the Melrose Road tenements at the corner of Owen and Melrose Roads. Accommodation is provided for 260 families. The walls are of common bricks, with a cream cement frieze. The roof is of tiles.



City of Liverpool Housing Schemes.] [*By L. H. Keay.*

Another view of the Melrose Road tenements, showing screen walls and self-contained cottages that have, in many instances, been built between the blocks to hide the backs of the tenements from the public thoroughfares.

THE LIMBERT NURSES' HOME, NEAR MANCHESTER

DESIGNED BY A. J. MURGATROYD

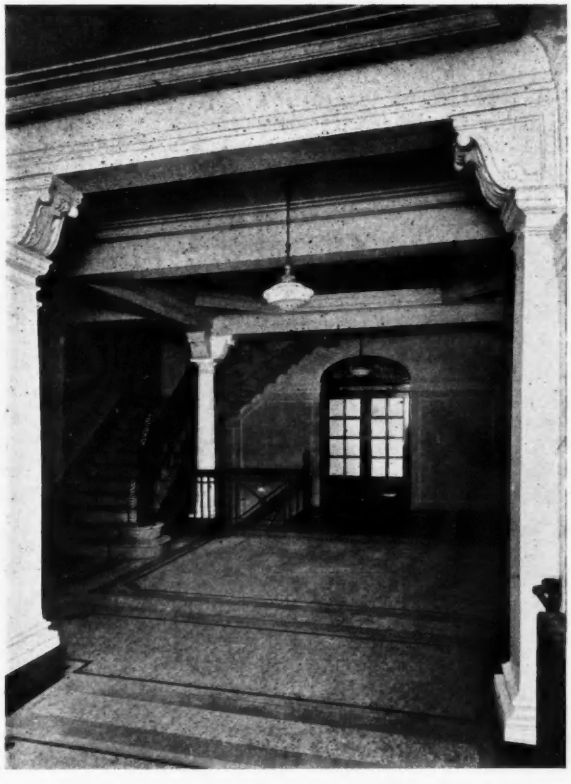


The new nurses' home at Crumpsall Institution, erected for the Guardians of the Manchester Union. Accommodation is provided for about 220 nurses. Features of the building are the probationers' recreation hall, and sitting-rooms for the matron, etc.

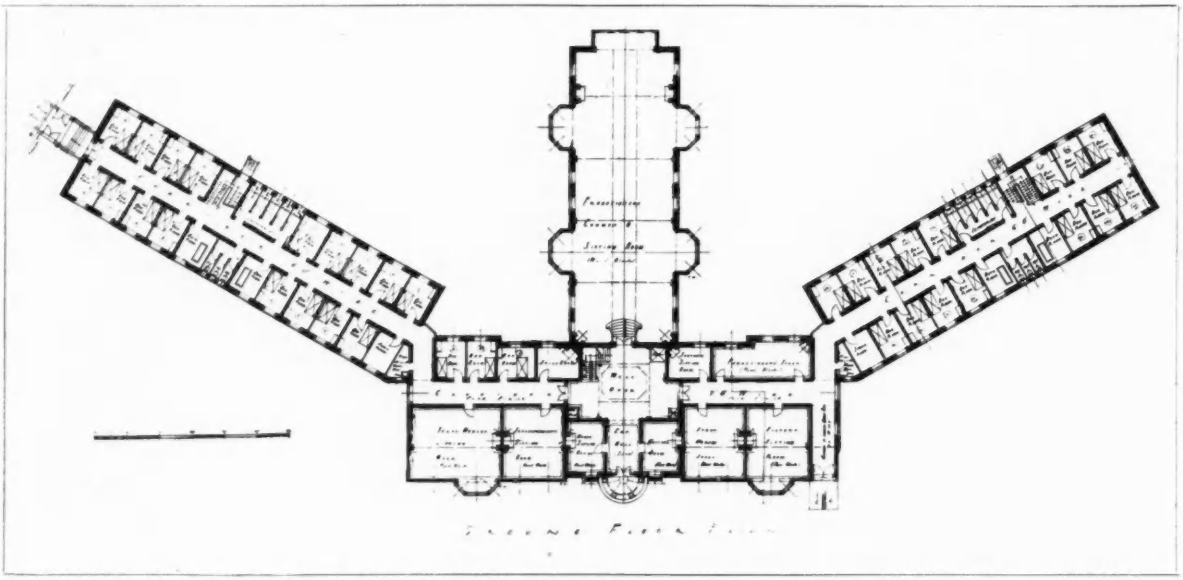
ONE of the latest important events concerning the Guardians of the Manchester Union was the opening of the Limbert Home at the Crumpsall Institution. This new building will accommodate some two hundred and twenty nurses, and provides a few extra rooms for sick cases. The cost, including furnishing, was about £80,000.

Among the chief points the architect had in mind when designing the home was to secure perfect lighting in all the corridors, staircases, etc., and ample ventilation throughout the building. Each nurse has the control of the ventilation to her own bedroom, and each extract shaft is independent of





The main entrance; and the entrance hall. The building is faced with red stock bricks with artificial stone dressings; the roof is covered with tiles. The architect's working drawing of the entrance and part of the main front is reproduced on page 14.



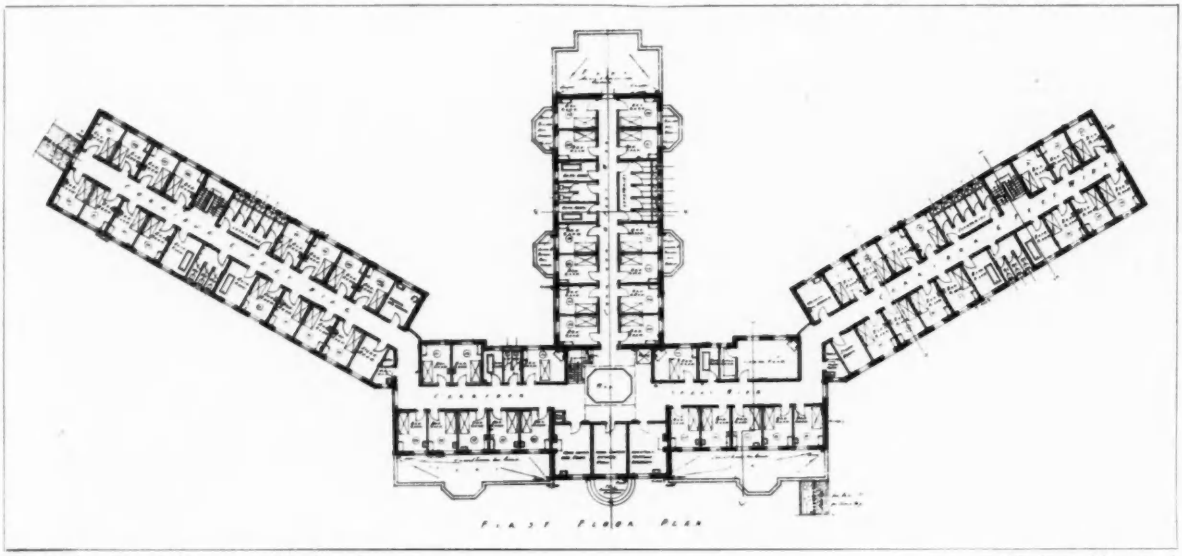
Ground-floor plan. Every care has been taken to secure the safety as well as the comfort of the nurses. The building is of fireproof construction and, in addition to the central staircase, there are staircases in both wings, and an escape staircase in the central block.

any other, all the flues terminating at the ventilators in the roof, in which electric fans work throughout the day and night.

On the ground floor is a large recreation and dance room for the probationers. It is some 100 ft. long by 35 ft. wide. There are also rooms for the matron in charge, superintendents, staff nurses and sisters, and silent and study rooms. On the upper floors are separate wardrobes for each nurse, shampooing rooms, and rooms where the nurses can wash small articles of clothing, such as stockings, handkerchiefs, etc. In the central hall are an electric passenger lift and a food and coal lift communicating with all the upper floors. On the top floor are sick rooms, bathroom, kitchenette, separate linen stores, housemaid's cupboard, and accommodation for five inmates and a nurse in charge. In addition to the fireplaces in the general rooms, the building is warmed by a central heating system. The home is connected by a covered way with the old nurses' home and general staff dining-room and cook house.

The building is named the Limbert Home as a compliment to the present Clerk to the Infirmary Committee, Mr. G. S. Limbert, and as a mark of the Guardians' respect for his long services.

The building was opened by Mr. Hugh Fay, J.P., the Chairman of the Board, who was presented with a gold key by Mr. Murgatroyd, the architect. Mrs. J. Murphy, J.P., unveiled in the main entrance hall the bronze tablet bearing the names of those of the committee of the Guardians who had chiefly been interested in the Limbert Home.



The Limbert Nurses' Home, near Manchester.] *[By A. J. Murgatroyd.*

First-floor plan. The accommodation shown is typical of that provided on all the main upper floors. In addition to the bedrooms there are shampooing rooms. Special facilities are included for washing small articles of clothing, such as handkerchiefs, stockings, etc.



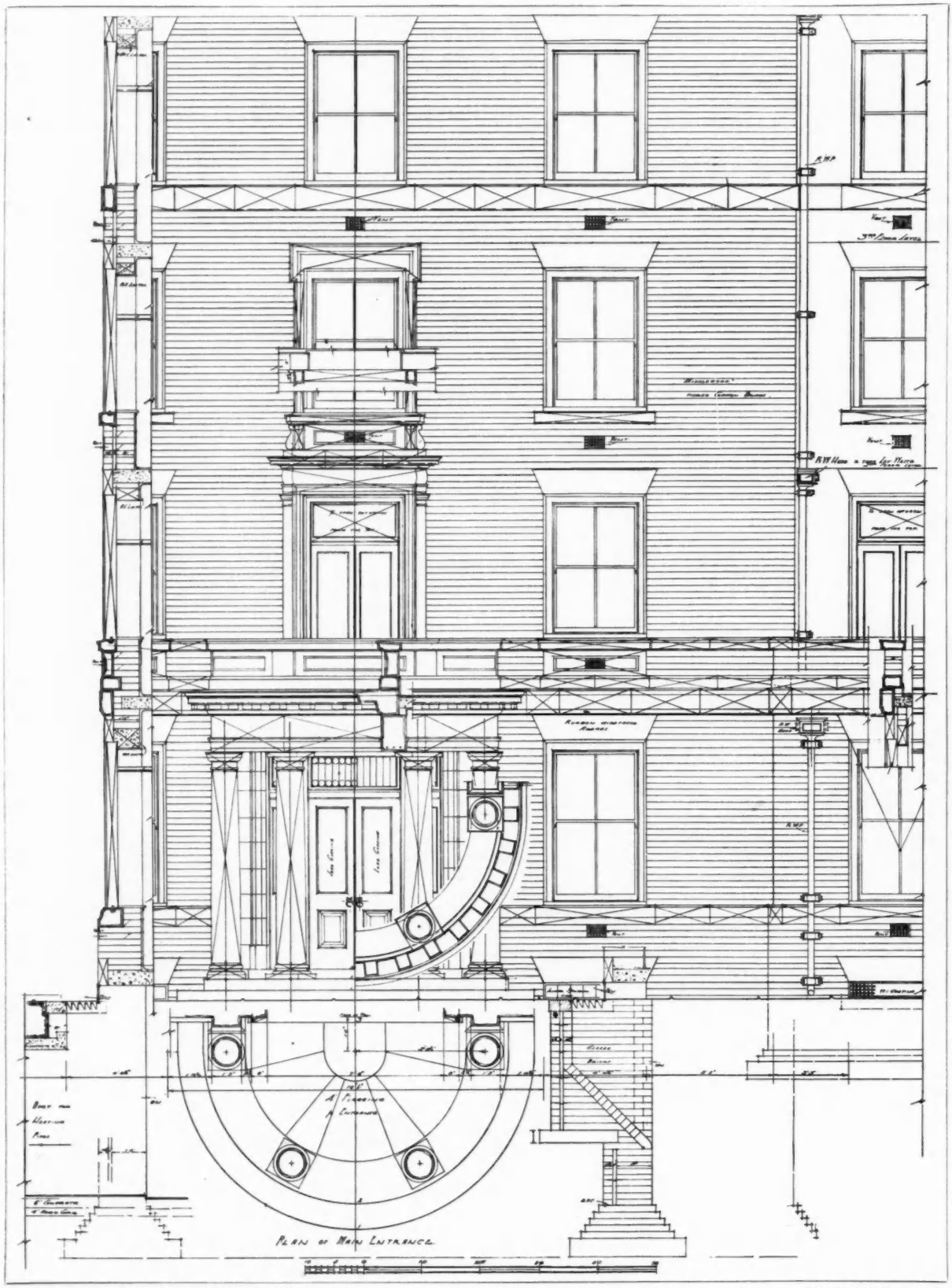
The probationers' recreation room on the ground floor is about 100 ft. long by 35 ft. wide. The floor has been specially designed for dancing, while four large bays, two on either side, enhance the hall's amenities, when in use as a sitting-room.



The Limbert Nurses' Home, near Manchester.] [*By A. J. Murgatroyd.*

On the ground floor also is the sitting-room of the superintendent. Adjacent, similar rooms are provided for the matron in charge, staff nurses and sisters. All these apartments are planned in the central portion of the home and around the main entrance hall.

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The Limbert Nurses' Home, near Manchester.] [*By A. J. Murgatroyd.*

A portion of the architect's working drawing of the principal elevation, showing the main entrance. The words "The Limbert Home" are cut in the cornice over the semicircular porch, as shown in the photograph reproduced on page 11.



ENGLISH PRECEDENT No. 122

DOORWAY, No. 32 HIGH STREET, WARWICK

This stone doorway dates from the third quarter of the eighteenth century and is typical of several doorways in the town.

The detail of the Roman Doric order is good, except for the attenuated pilasters. The floral rosettes in the metopes are delightfully varied. The curled scrapers are probably contemporary.

—[C. M. C. ARMSTRONG]

LETTERS FROM READERS

Art and Technology

SIR,—The leading article in last week's issue of the JOURNAL on "Art and Technology" touches upon a vital issue. There is no doubt that the teaching of art and technical science must be much more intimately associated if a modern version of the "Arts and Crafts" spirit is to be revived.

But I fancy that the weakness which Lord Eustace Percy indicates as existing is not being overlooked, and that certain officers of the Board of Education are doing their utmost to study this question, and find a solution. I feel that the "philosophy of art" will emerge of its own accord when men skilled in art and technology will be able to co-operate under any administrative scheme which overcomes the difficulties—very real—of what must, in effect, be a sort of dual headship of the combined school; for, in practice, men skilled in both departments are extremely rare.

Personally, I believe, therefore, that changes in organization and curriculum are a first and necessary step.

HOWARD ROBERTSON

Building Density Bylaws

SIR,—This part of Slough, as you are aware, is a rapidly-growing manufacturing district, and until April 1 this year was under a Rural District Authority. Building has been rapid—mostly of the £550 parlour-type, semi-detached house at twelve to the acre—and most of the land (which is very costly) has been taken up. These houses are sold in co-operation with building societies, either to occupiers or to speculators, and the capital repayments and interest, together with rates, amount to about 25s. per week. In either case this can be regarded as rental, because, even where the occupier is the purchaser, a large number will not complete the purchase, owing to the fluctuating character of the employment available. The average wage of a factory worker is not more than 55s. per week. The result is that the houses are overcrowded, and the object of the Town Planning Regulations is defeated.

The following letter was addressed by this Association to the Ministry of Health on June 6 and their reply is awaited :

DEAR SIRS,

As a result of a decision at our annual general meeting (20th ult.), I am instructed to ask you to consider an increase in the density at present allowed in the Urban District of Slough, viz., twelve to the acre, to an amount of not less than twenty to the acre. This is in support of action contemplated, or already taken, by the Slough Urban District Council.

As you are well aware, this is now an industrial area, inhabited very largely by factory workers whose wages rates vary between forty-five and sixty-five shillings for a normal working week.

There are very few working-class houses built to rent in this district (representations were recently made to you by the N.U.R. on this subject), and workers are therefore compelled to purchase cottages by instalments, which, including rates, amount in most cases to 25s. per week.

The result is that the present *density bylaw has become a farce*, as workers are *compelled* to sub-let or take in boarders. There are probably 100 people to the acre at present in the populated parts.

Our members are of the opinion that the building of dwellings in continuous rows, or as masionettes or flats, would result in a much cheaper dwelling, and less people to the acre, under better conditions.

I am, therefore, instructed to ask for the relaxation of bylaws to that end.

Yours faithfully,

C. MAURICE WHITE,
Joint Hon. Secretary,
Farnham Ward Ratepayers' Association.

There has recently been some prospect of a scheme for concrete flats, built with 6-in. cavity walls, which would let at 9s. 6d. per week. The scheme was proposed by a building trust. We sought technical advice, and were warned of the risk of the concrete "sweating." There appears to be divergence of opinion on the point, and we would like to know what the collective verdict of the architectural profession is upon this method as applied to *small dwellings*. Are there many such concrete cottages in existence? And are they satisfactory?

Our own view (we are uninstructed laymen) is that we should prefer to see the local Council build dwellings of their own, without contribution from the Exchequer or the rates, to let at inclusive rentals, which, we feel, could not be lower than 10s. 6d. per week, and should not be higher than 15s. per week. We think that the lower figure could be reached by building rows of flats, having ground and first floors, four rooms on each floor, separate front and back entrances, and small separate back gardens, with separate entry from rear. The cost would have to be not higher than £650 per pair. Is this practical politics?

The question is important; its significance is national, not local. Briefly stated, it is this : Is it now possible to build a dwelling which can be let at an economic rental within the reach of the lower-paid workers without sub-letting?

Yours faithfully,

C. MAURICE WHITE,
Hon. Secretary.

Priced Bills of Quantities

SIR,—Regarding the question of access to the builder's priced estimate, the clause in the 1909 contract is a survival of old practice which today is more honoured in the breach than in the observance.

The chief reason for the change is the tendency for the architect and contractor to trust each other not to abuse the convenience which access to the bill always affords to both sides in considering alternatives, etc.

In actual practice, the bill is checked by the quantity surveyor before the contract is signed, and a copy of the prices lies in his office for use for certificate purposes throughout the course of the contract. The architect rarely sees it, and even if he did, his knowledge of prices is not usually sufficient to enable him to judge whether certain items are cheap or dear. In my experience our leading practitioners would not descend to change their specification to get bargains from the contractor for clients.

If pressed to reduce their estimates, they might very naturally select the most expensive items to substitute cheaper materials or construction, but they would do so quite regardless of the question as to which carried the greater profit. That is a risk the contractor has to run. Within reasonable limits the architect is within his right in doing this, and it is a conclusive argument in favour of the consistent pricing of the original estimate.

I have known cases in which the contractor has been badly hit by such changes, but not by intention, either of the architect or the surveyor.

The builder's best protection is to avoid contact with those who have abused the privileges allowed by him in allowing his priced bill to be used for reference.

HENRY J. LEANING

Conference Pleasure Trips

SIR,—In Astragal's notes on the R.I.B.A. Norwich Conference this year he remarks that he remembers no other Conference having arranged an excursion programme with an item bearing no relation to business but which was "pleasure pure and undiluted." He cannot, then, have been at the first Conference held after the war and arranged by the Liverpool Architectural Society. This programme included an excursion on the River Mersey at the invitation of the White Star Line in their tender "Magnetic." Many visitors to that Conference must still remember with pleasure that trip.

KENNETH CAMERON

Architects and New Materials

SIR,—The note in your issue of May 28, page 836, is in our opinion

very well put. It is true in every respect, and we hope it will receive the attention it deserves.

We fear that professional men appreciate even less than the general public the very great speculative risk both of capital and reputation involved in backing new inventions and processes from which, in the end, their clients derive benefits of economy, comfort, safety, convenience and pleasure. Engineers, and especially architects, do not, we repeat, sufficiently realise the obligation they owe to their profession and to their clients with regard to the improvements that may be realized in adopting new ideas as they become commercialized.

It is generally accepted that if a new idea or process has any merit it will win through in the end, and moreover, that the best of similar processes or articles will ultimately succeed against its competitors, but this is not necessarily so. Many valuable ideas have been lost owing to insufficient financial backing to see them through the difficult initial period.

If the architect would give the commercial exploiter the advantage of his technical advice, many initial errors and failures could be avoided. Moreover, in cases where initial failures do occur, an expert investigation might easily disclose both the reason and the remedy at once. The architect should, as you indicate in your note, realize that the commercial exploiter or manufacturer, even if not a technical man, may quite easily, nevertheless, have the fullest practical knowledge regarding his material; and he should be most careful not to depart from his advice or instructions without the most careful investigation.

But the greatest help of all which the architect can give is to be receptive of and sympathetic to new ideas, and to investigate these as soon as they are brought to his notice, to estimate their possibilities, study their applications, compare them with similar processes, and finally to pass a considered technical judgment upon their scope and upon their merits.

We quite realize that to expect architects individually to do this would be generally asking too much, but surely there is no reason why their associations, in combination perhaps with other learned associations, should not have an organization to work along these lines. We are not suggesting that the results of the investigations should be published, but only that they should be given to the manufacturers and exploiters of new ideas and materials and to members of the associations comprising the organizations, who would then use the advice for the benefit of their clients in the future.

MANUFACTURER

Settling-Up Honeywood : vi

RIDDOPPO COMES TO THE BOIL

BY KARSHISH

(H. B. CRESWELL)

Sir Leslie Brash, the owner, has complained that the electric bells, and the Riddoppo paint used inside the house, have gone wrong; an idea that the drains are defective is combated by both Spinlove, architect, and Grigblay, builder; a heavy bill of extras is in the offing, and the kitchen door jammed and spoilt a dinner-party. These, however, are the only uneasinesses that have, so far, marred the Brash's enjoyment of what is evidently a well-planned and soundly-built house.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 30/4/26.

It was with considerable astonishment—will you permit me to say—that I read the copy of Mr. Grigblay's report on the sanitary abnormalities obtaining at Honeywood; as this, so far from elucidating the circumstances elaborated in your letter on the subject, intimates no reference whatever to many of them. This is a matter I will take an early convenient opportunity of investigating in oral conversation with you as, also, other important matters somewhat lightly—if you will pardon me—touched on by you.

Yours sincerely,

" *Oh, what a tangled skein we weave,*
When first we practise to deceive! "

SPINLOVE TO GRIGBLAY

Dear Sirs, 1/5/26.

Sir Leslie Brash rang up today and told me that the kitchen door in some way jams against the handle of the cupboard, and the servants were not able to get into the kitchen. Will you please send someone over to put things right. The cupboard door had better be hung the other way round and a spring catch fixed so that it remains fast when closed.

Sir Leslie Brash also spoke of the Riddoppo paint as developing serious defects. He had previously referred to this matter in a letter. I reminded him that it was used by his orders and against my wishes and your advice. Could Mr. Grigblay call or send over a painter to see what can be done?

Yours faithfully,

Spinlove seems to have suffered puncture! There is a note of moral deflation in this letter. Our young friend makes no attempt to put the blame on the builder, as he has taught us to expect, but actually accepts responsibility for the kitchen door fiasco. He seems also to have given ground deplorably in the matter of Riddoppo. Apparently Grigblay's urgent representations have made no impression on him. Is Mr. Spinlove losing heart? If so, he had better give up practice at once. The letter that follows offers some explanation.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 1/5/26.

I write to confirm telephone conversation this morning.

I still think that the stuffy smell complained of is that given in Mr. Grigblay's report. As I explained, my own report to you was partly based on private messages from Mr. Grigblay. In any case the condition is not, I am quite sure, due to faulty drains or to any defect in the building work.

I am unable to say to what the defects in the Riddoppo paint are due. You will remember that I never recommended it, and Mr. Grigblay also objected to using it. As arranged, I have asked Mr. Grigblay to see what can be done.

I am very sorry indeed for the accident of the kitchen door. I have today written to Grigblay with instructions for alterations that will prevent anything of the kind happening again.

I have this morning enquired by telephone, and find that the breakdown of the bells was caused by a large nail driven into the wall of the pantry by one of your servants.

Yours sincerely,

Brash, we may judge, has been truculent over the telephone. The bell-wiring does not seem to have been done as well as it should. Presumably, the electric light wiring was drawn in through tubes, and the bell wires ought to have been run in the same way.

GRIGBLAY TO SPINLOVE

Dear Sir, 3/5/26.

We shall be obliged if you will inform Sir Leslie Brash that we cannot advise him re Riddoppo, as the paint is composed of ingredients which are a trade secret, and we know nothing of it. He will remember that we refused to take responsibility for painting with same and only did so by his orders on the understanding that he took responsibility for the results.

Yours faithfully,

If, as Grigblay claims, he is not responsible for the defects in Riddoppo, it would be a grave error in judgment for him to offer any opinion on the nature or cause of them, and much more unwise for him to have anything to do with reparation.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 4/5/26.

I wrote to Mr. Grigblay asking him to see what could be done to make good defects in the paint, and I enclose copy of his letter in reply.

Yours sincerely,

Spinlove has no business to pass on Grigblay's disclaimer without comment or explanation. His duty, as architect and arbiter under the contract, is to master the facts, to hold the scales between owner and builder, and to maintain the rights of each.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 7/5/26.

Although I have in the past had no occasion to form a particularly favourable opinion of Mr. Grigblay's good manners, I confess that I was completely taken aback with surprise at the high-handed style in which he has indited his communication to you intimating his refusal to make himself amenable to my desire that he should apply himself to the reparation of the failure of the paint; but you must permit me to say that I was even more astonished at the detached aloofness of your communication covering its transmission. What the man intends to signify by saying that I, *I* of all people, who have had nothing to do with it, am responsible for the disintegration of Riddoppo—unless he is going off his head, which is precisely what I should anticipate of the fellow—I entirely fail to comprehend. What have I to do with the "results" of his work? This, you must permit me to intimate, is a most preposterously impudent suggestion for a builder to propound, and I make strong objection to your affirmative acquiescence in such an extortionate proposition. I desire that you will at once require Mr. Grigblay to perform his duties, for I divine that the reserve held back by me as security for the reparation of defects is to reimburse me for losses due to unjustifiable refusals. I am not, I apprehend, to be at the mercy of the contractor!

Yours sincerely,

Brash is precipitating disaster, for he has evidently forgotten the circumstances in which he ordered Grigblay to paint with Riddoppo.

SPINLOVE TO GRIGBLAY

Dear Sirs, 8/5/26.

I sent Sir Leslie Brash a copy of your letter on the subject of Riddoppo, and I have received one from him in which he disclaims responsibility for the failure of the paint, as he has had nothing to do with it, and renews his request that you will give immediate attention to the matter.

Yours faithfully,

This letter strengthens the earlier impression that Spinlove is held by other activities and is fed up with Honeywood. He has, however, adopted an impossible position in standing aside while builder and owner fight the matter out for themselves.

GRIGBLAY TO SPINLOVE

Dear Sir, 10/5/26.

We will thank you to kindly note and to politely inform Sir Leslie Brash that Riddoppo paint is his own concern and no sort of business of ours, as he knows well enough without being told. We used the stuff by his orders on the undertaking he gave to accept full responsibility for failure of same, after we had objected and refused to take responsibility, which please note and see correspondence.

We also will thank you to respectfully point out to your client that we called attention to the defects he has just discovered for himself, nearly six months ago, and warned him before the painting was finished what would happen, and he ordered us to go on and finish in spite; and also politely inform him with our respectful compliments that it will save him a bit of unnecessary trouble if he gives up trying to put the blame for his own obstinacy on to us, and kindly notes that we politely refuse to have anything further to do with his mistakes, having completed our contract to instructions, and decline to pickle off, burn off, scrape off, hack off or touch up or have any further hand with new novelty super or other painting at Honeywood of any kind whatever or for any consideration whatever; and if Sir Leslie Brash wants our advice, the advice we respectfully send him is to leave off trying to put the blame where it does not belong, and ask those to set him right who set him wrong, and that is the people who manufactured and supplied the paint to us at his orders.

Yours faithfully,

Grigblay is warming up, and no wonder! This "respectful" and "polite" message is evidently dictated by him. The general run of letters from his firm is apparently the work of a secretary.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 11/5/26.

I sent Mr. Grigblay your message, and his reply is much what I expected. He disclaims all responsibility for Riddoppo on the ground that you accepted responsibility when you ordered him to use it. He recommends that you should apply to the manufacturers, or to the suppliers, for advice on the matter.

I do not know what more I can do, as I know nothing of the composition of the paint, which is a secret. As you will remember, I always advised against its use and disclaimed responsibility for the result.

Yours sincerely,

It is ridiculous for Spinlove to suppose that he can stand aside as though he were the disinterested spectator of a dog fight. At the same time, it must be admitted that the line he takes is strictly consistent with his disclaimer of responsibility, so that except that he is precipitating a break with his employer he has not, as we had good reason to fear he might, prejudiced his own nor Grigblay's position.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 12/5/26.

I was astonished to peruse your communication transmitting Mr. Grigblay's impertinent asseverations of refusal and denial of responsibility. Am I to understand that you are desirous of taking sides with the preposterous claims of the builder against me? Have I to remind you that, as my accredited architect, it is encumbent upon you to protect my interests and enforce on the contractor the due observance of his obligatory duties? If so, I apprehend I have been seriously mistaken in the character of the gentleman to whom I have entrusted the management of my building operations. The paint in the house is displaying disastrous signs of ocular disintegration which develop increasingly, and my architect refuses to stir a finger in the matter because he objected to the paint and is "not responsible" forsooth!

The whole matter is perfectly unendurable and beyond bearing, and I desire that you will intimate to Mr. Grigblay with necessary emphasis that, unless he forthwith immediately agrees to restore and renew the defective paint in a properly permanent and workmanlike manner, I shall engage the services of some other building contractor to do the work, and subtract the amount of the cost as a deduction from the next payment I am asked to make to him, for I divine that the purpose of the security retained by me is designed as applicable to this purpose.

Yours sincerely,

In the event of a builder refusing, or failing to satisfy his covenant, to make good defects, the retention money may be applied as Brash proposes; but it can only be so applied after formal warning and notification to the builder, and only if the defect in question is due to improper workmanship or materials for which the builder is responsible.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 14/5/26.

I think you must have forgotten what occurred at the time you directed me to order Grigblay to paint with Riddoppo, and I therefore enclose copies of various letters that passed, including—in case you may not have kept copies of them—your letters to me.

It seems clear that Grigblay cannot be held responsible for the failure of the paint. He also asks you to excuse him from expressing an opinion of the cause of the defects or from having anything to do with renovations, and for the reason I gave, namely, that he knows nothing of the paint the ingredients of which are a trade secret. When you read the letters you will see that Grigblay called attention to defects before the painting was finished, but that you ordered him to complete; and you will also see that I always strongly objected to the use of Riddoppo and disclaimed responsibility for the results of using it.

Yours sincerely,

Spinlove is certainly keeping on safe ground, but his detachment seems chiefly due to his being sick of Honeywood. The proper action for him to take would be to study the case exhaustively and give the best advice he can, and—instead of leaving his client to find his own way—guide him to the wisest course and, possibly, contrive a compromise. However, Grigblay is too wary ever to have anything more to do with Riddoppo either on the walls of Honeywood Grange or in the tin.

LADY BRASH TO SPINLOVE

Dear Mr. Spinlove,

We have a small party here on Friday and hope you will come to tennis in the afternoon and stay the night.

It is all getting into the carpets and I shall have to take them up if it goes on and they do not stop it and so *dreadfully* noisy to walk on ! ! I hope they will do it soon and have finished with once for ever. It is all so very trying isn't it and so stuffy, it seems as if we should never be able to settle down but Mr. Grigblay says wait for the summer so I suppose we must it will not be long now I am thankful to say.

How beautiful all the blossom has been lately.

Yours sincerely,

Monday.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 17/5/26.

I have re-perused your communication and the transmitted copies of enclosed correspondence a second time. My previous recollection of the matter had, as you correctly divine, escaped my memory, but Mr. Grigblay's proposition that by intimating willingness to take responsibility for ordering I made myself liable for eventual default of persons other than myself is—you must permit me to point out—most excessively preposterous, as I shall get an early opportunity of requesting my legal advisers to authoritatively confirm. If, as Mr. Grigblay impudently contends, the liability of defective blemishes is not his responsibility, then it is the responsibility of the manufacturers, and it is for them to decide the dispute between themselves; and my precise directions to yourself are that the progressive disintegration shall be immediately arrested and necessary reparations proceeded with without delay. The matter is now *imperatively urgent*, as the little flakes of paint cannot be removed by brushing the carpet, and have to be individually picked off with the thumb and finger, a duty so laboriously irksome to the domestic staff that it is performed in a perfunctorily imperfect manner, and particles of Riddoppo are, for this cause, on all sides being *trodden into the carpets* with resultant consequences you may conjecture.

As I do not apprehend that I have at any time intimated that I regard you as responsible for the disintegration, your disclaimer of responsibility appears to me—if you will permit me to be perfectly frank—somewhat unnecessarily premature; nor do I perceive, as you intimate, that you disclaimed liability for any prognosticated eventual results.

Yours faithfully,

Brash's gracious intimation of "his willingness to take responsibility for ordering" was in these words: "I do not know what the man [Grigblay] means by 'responsibility' and—if I may be permitted to be perfectly frank—I do not care. I give the order and the responsibility for giving the order is mine. Mr. Grigblay's responsibility is to do what he is told at once."

The history of the matter as recorded in "The Honeywood File" is briefly as follows:—

Brash writes to Spinlove giving glowing advertisement accounts of a wonderful New Novelty Super-Paint called Riddoppo, and directing Spinlove to use it. Spinlove objects that he knows nothing of Riddoppo and that the well-tried paint specified by him gives the best possible results. Brash grows peppery, and retorts that for Spinlove "to asseverate condemnation of a paint of which he admits he knows nothing, is a little wanting in logical reasoning," and insists on Riddoppo being used. Spinlove gives the order to Grigblay, who replies that he knows nothing of Riddoppo and has failed to obtain any satisfactory accounts of it, and that he "cannot accept responsibility for same." Brash, on hearing this, objects, angrily, at being "dictated to"; and delivers himself as first above quoted. Spinlove thereupon writes to Grigblay: "I am instructed by Sir Leslie Brash to order you to paint with Riddoppo. Sir Leslie Brash accepts all responsibility."

Those are the facts, and if, as they appear to show, Brash is responsible for the paint having been ordered, then, in that case, Grigblay is responsible to Brash for properly applying the paint; Brash is responsible to Grigblay for the integrity of the paint; the manufacturers are responsible to Brash, Brash is responsible to Spinlove, Spinlove to Brash, Spinlove to Grigblay and Grigblay to Spinlove—all in different degrees and on different issues—so that when Grigblay described the approaching disaster as a "mix up" his term was not inappropriate. If Brash had not interfered there is no doubt that Spinlove, with Grigblay's experience and integrity to back him, would have completed the house with sound paintwork; but had things by any chance gone wrong, Brash would have been secure under the contract and his remedy would have been the simple one of requiring Grigblay to repaint. He has brought all this trouble on his own head.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 18/5/26.

I have told Mr. Grigblay the position you are taking. I will not reply to your letter as we shall be able to talk matters over during the week-end.

With kind regards,

Yours sincerely,

SPINLOVE TO GRIGBLAY

Dear Sirs, 19/5/26.

I communicated the contents of your letter to Sir Leslie Brash and sent him copies of the earlier correspondence. He says that in ordering Riddoppo he did not make himself responsible for defects due to improper materials or workmanship. He calls on you to make good at once as the carpets are being spoilt; and holds that the matter is for you and the paint manufacturer to settle between you. He is consulting his solicitors to decide what action to take if you refuse.

Yours faithfully,

Spinlove is not content to stand aside and watch the dog fight: he must, it seems, urge them on by throwing the animals one at the other.

GRIGBLAY TO SPINLOVE

Dear Sir, 20/5/26.

We note Sir Leslie Brash's views on responsibility for the failure of the paint, and have nothing to add to our last *re* same.

Yours faithfully,

[NEXT WEEK: VII—THE LITTLE BILL OF EXTRAS.]

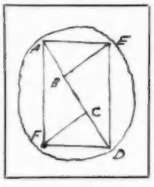
QUESTIONS THAT ARISE

Cutting from Logs

A. E. writes: "*Every student knows that the strength of a wooden beam varies inversely with the depth, but I have a practical problem in sawing up the timber on this estate, and that is how to decide on the strongest beam that I can cut from a sound log. We do all our own building and repairs and fell and season a fair quantity of timber annually. My woodman usually works by rule of thumb, but I should like to be sure I am at times not cutting to waste.*"

The strongest beam is one whose breadth is to depth as 5 to 7, and the log should be cut as follows:

Draw a diameter of the log AD and divide into three equal parts, AB, BC, CD. Erect perpendiculars at B and C on opposite sides of AD, intersecting the circumference of the log at E and F. Join AE-ED and AF-FD, and the rectangle so formed will be the strongest beam obtainable from the log. For rough construction the wavy edges at A, E, D and F do not matter.



P. T.

Tube Wells

H. A. W. writes: "*I propose to build for a client a small house in Devon, on a hill where water service is not available. I understand that the most effective and at the same time cheapest well is that known as a 'tube' well. Would you give me full particulars as to the nature of this type of well, and how it is formed?*"

Driven tube wells are applicable for many conditions of strata which, though hard and compact, are not composed of actual rock. This type of well is simply and quickly sunk, but before determining whether it is suitable for the particular case, it is desirable, if possible, to ascertain the depth at which water is found in the district, and also to inquire into the geological strata likely to be encountered, since this type of well is not suitable for beds of stiff clay or true rock.

Briefly, the well consists of a hollow tube, which may be from $1\frac{1}{4}$ in. to 6 in. in diameter, composed of any number of lengths, according to the depth required. The first tube driven, i.e. the lower end of the well, is equipped with a series of holes in the first 2 or 3 ft., and the point is prepared as a driving or piercing tip. In sinking the tube a vertical hole is first made in the ground with a crowbar, and in this hole the first length of tube is inserted. The top of the tube is furnished with a socket and driving cap, and rigidly attached to this cap is a spindle or guide, over which the driver or monkey slides, being hauled up and dropped by means of ropes and pulleys. When the first tube has been driven to within a few inches from the ground, the driving cap is removed and a further length of pipe added to the original one. The driving cap is screwed to the new length of pipe and the driving procedure continued.

Periodically the tube is sounded by means of a plumb bob in order to detect the presence either of water or of soil which has entered the tube through the perforations in the lower end. The soil is cleared at intervals, by means of clearing-out tubes and flushing with water, a pump being attached to the clearing-out tubes and gradually lowered until the whole of the debris has been removed from the pipe, when the clearing-out tubes are withdrawn. In some cases recourse is had to a "sand tube," similar to the ordinary well point, but protected by a perforated brass sheet fixed over the drilled part of the tube, the holes in the pointed pipe being then drilled very much larger than in the ordinary well tube. The tube is driven and cleared in the usual manner.

When water has been reached, the pump is attached to the well tube and started by pouring water into the top to force the air from the pipe. The first delivery is always more or less muddy; but by manipulation of the pump, so that the column of water held in the well tube is released suddenly, the water is forced through the perforations in the bottom length, and the surroundings of the bottom well tube disturbed. Repetition of this action forces the water in and out of the perforations, and thus allows the finer particles to be pumped out, while the larger are drawn round the well tube to form a natural filter.

The depth to which tube wells may be driven is entirely governed by the nature of the soil. They commonly are sunk to 60 or 70 ft. and even more, and under some conditions, due to underground pressure, the water may rise to within the 28 ft. of the surface which represents the limit of capacity of an ordinary lift pump. When the water has to be lifted from a greater depth it is advisable to drive a larger tube well, so that the working barrel of the pump may be placed within lifting reach of the water.

The conditions indicated by H. A. W. suggest serious doubt as to the applicability of the driven tube well, particularly on a hill in Devon where the strata are largely Devonian sandstone. It is probable that a very considerable depth in any case would be required to strike water, unless a casual spring were encountered. In the event of the strata being hard, a bored tube well would be necessary, and the cost be proportionately greater, possibly up to £2 a foot, apart from the deep well pump and engine.

A better indication could be given if your correspondent would state the exact location, so that reference could be made to the geological maps of the area.

As an alternative, a better proposition might be to construct underground storage of, say, 20,000 to 50,000 gallons and collect surface water, since the rainfall provides a reasonable supply throughout the year. Without fuller particulars of the requirements, however, it is difficult to give more definite advice.

A. H. H.

Colouring Granolithic

T. R. writes: "*I am laying a granolithic floor, and it has been suggested that this might be permanently coloured, instead of finishing with the usual effect obtained by plain granolithic. Is it possible to get a good uniform colour, or is the colouring likely to be patchy? I have heard of this work being done, but have never attempted it myself. I should be glad to have any hints towards making a satisfactory job.*"

Coloured granolithic is quite effective if the builder carries out the work carefully to instructions.

The bed should be laid with Portland cement concrete, well wetted, to receive 1-in. granolithic finish. The granolithic should be laid in, say, 10-ft. bays, and the wooden screeds struck as soon as possible, so that the making good will give an evenness of colour.

The work should be trowelled off smooth within an hour of laying, and the granolithic should be mixed to the following proportions:

Three parts of granite chippings to pass a $\frac{1}{4}$-in. ring and one part of coloured Portland cement. The whole to be turned over twice when dry and well entered. To every bushel of Portland cement add three quarts of red oxide, vegetable black, or other coloured powders required. To be mixed dry with the cement and passed through a fine wire mesh to dispose of any lumps.

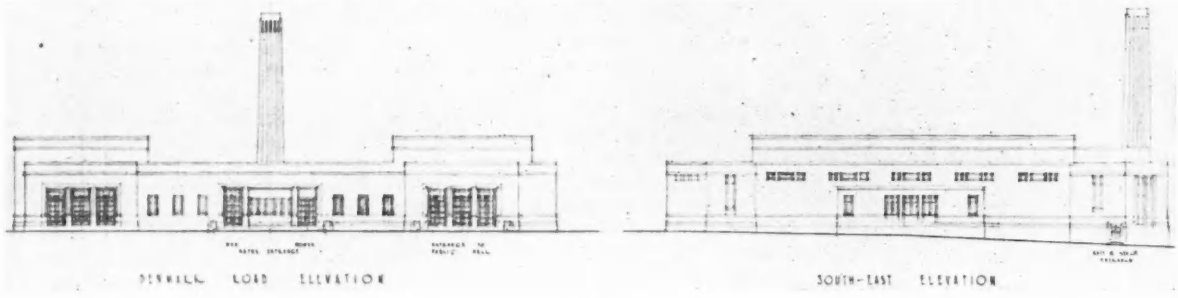
The whole of the work must be kept free from lime, and no dry cement must be added when trowelling. Otherwise the chief factors towards success lie in careful gauging and trowelling off.

G. O. W.

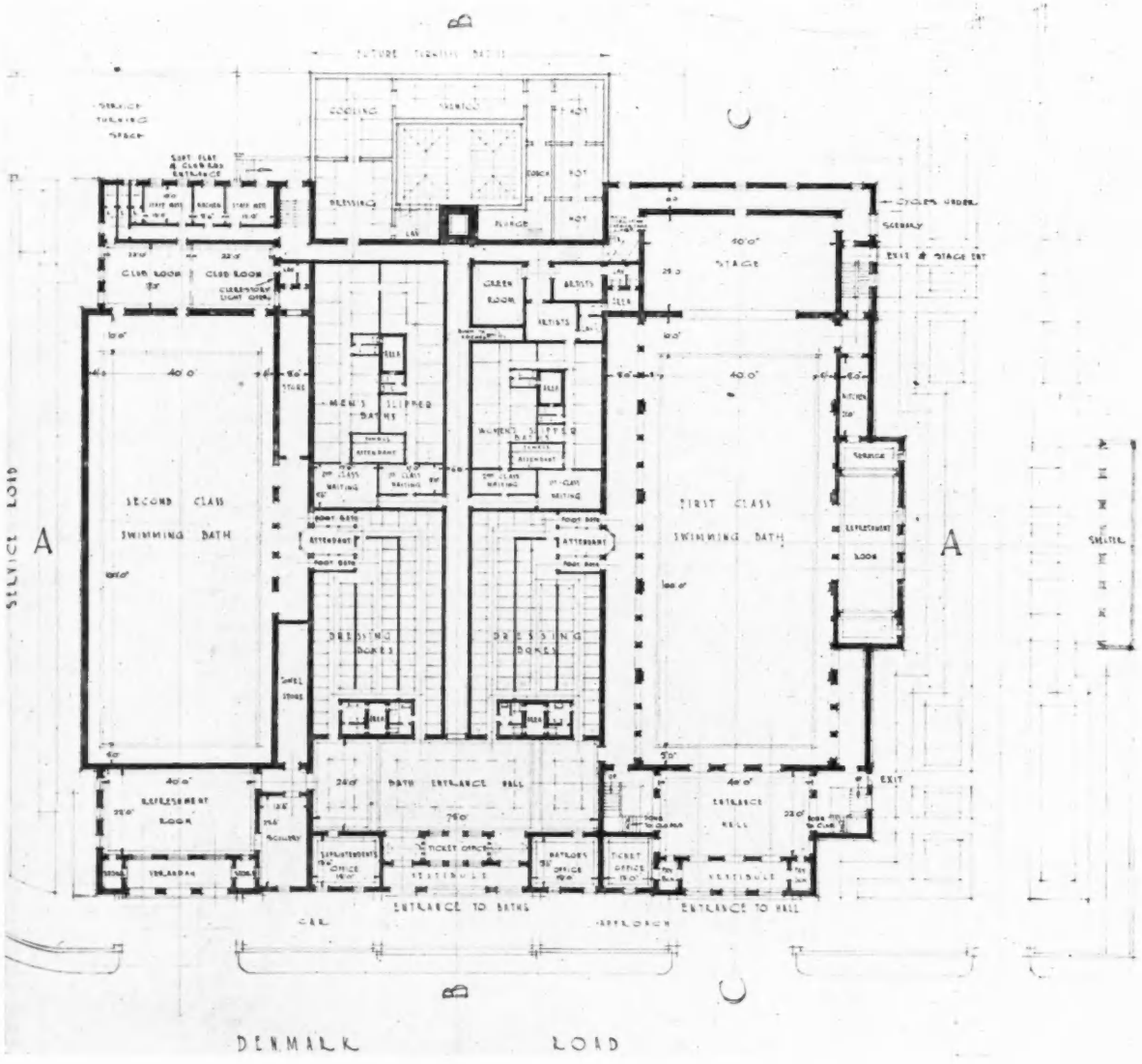
Mr. William John Locke, the well-known novelist, left £24,505 (net personalty, £24,484).

KINGSTON PUBLIC BATHS COMPETITION: WINNING DESIGN

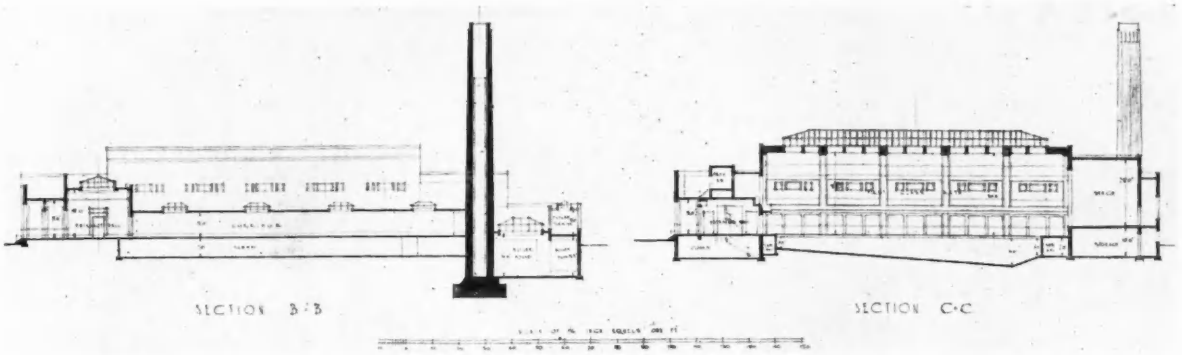
BY VICTOR BAIN AND ALLAN JOHNSON



The south-west and south-east elevations. *The main entrance is in the centre of the Denmark Road front; to the right is the entrance to the first-class bath when it is used as a public hall.*



Ground-floor plan. The first-class swimming bath has a pond 100 ft. long by 40 ft. wide, and is entered from the dressing-boxes under the direct supervision of the attendant. The building has been specially planned for mixed bathing.



Section BB through main entrance hall, corridor and chimney; and section CC through entrance to public hall, first-class swimming bath, to be used in winter as a public hall, and stage. Nearly all the accommodation is planned on the ground floor.

THE following awards were made by the assessor, Mr. J. Ernest Franck.

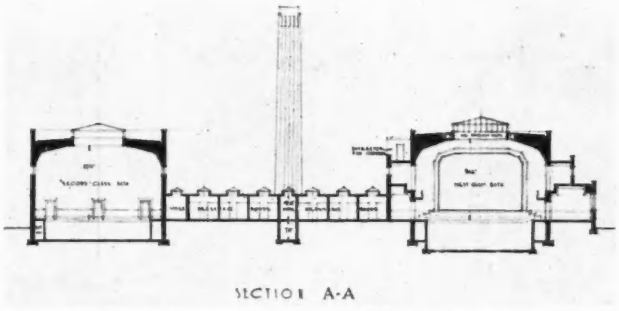
First premium (£300), Victor Bain and Allan Johnson, Leeds.

Second premium (£200), F. J. Horth and H. Andrew, Hull.

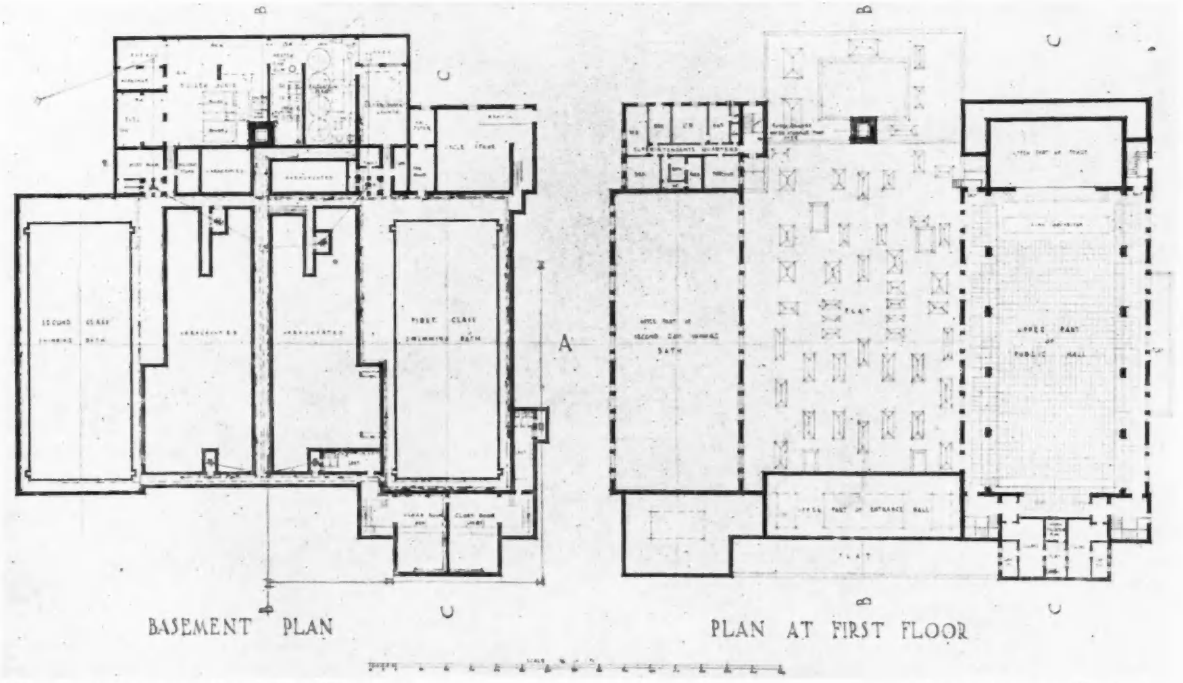
Third premium (£100), C. B. Smith, London.

Fourth premium (£50), L. H. Bucknell and R. Ellis, London.

In his report the assessor says that all the competitors have placed the principal entrance either in Denmark Road or from an open space opposite to the junction of Penrhyn Road and St. James' Road. His own suggestion would be to make a wide paved approach on the south side, joining Denmark Road to Grange Road, and place the principal entrance on the new approach. This would solve the traffic problem and give a fine open vista to the main front.



Section AA through second-class swimming bath, dressing boxes, corridor, first-class swimming bath, and refreshment room.



Kingston Swimming Baths Competition: Winning Design.] *[By Victor Bain and Allan Johnson.*

Plans of basement and first floor. The superintendent's quarters on the first floor consist of parlour, living room, scullery, larder, coal, three bedrooms, bathroom and w.c. In the basement are the boiler house, filtration plant, establishment laundry and cycle store.

HOUSE AT NORBURY, S.W.

DESIGNED BY
G. ALAN FORTESCUE

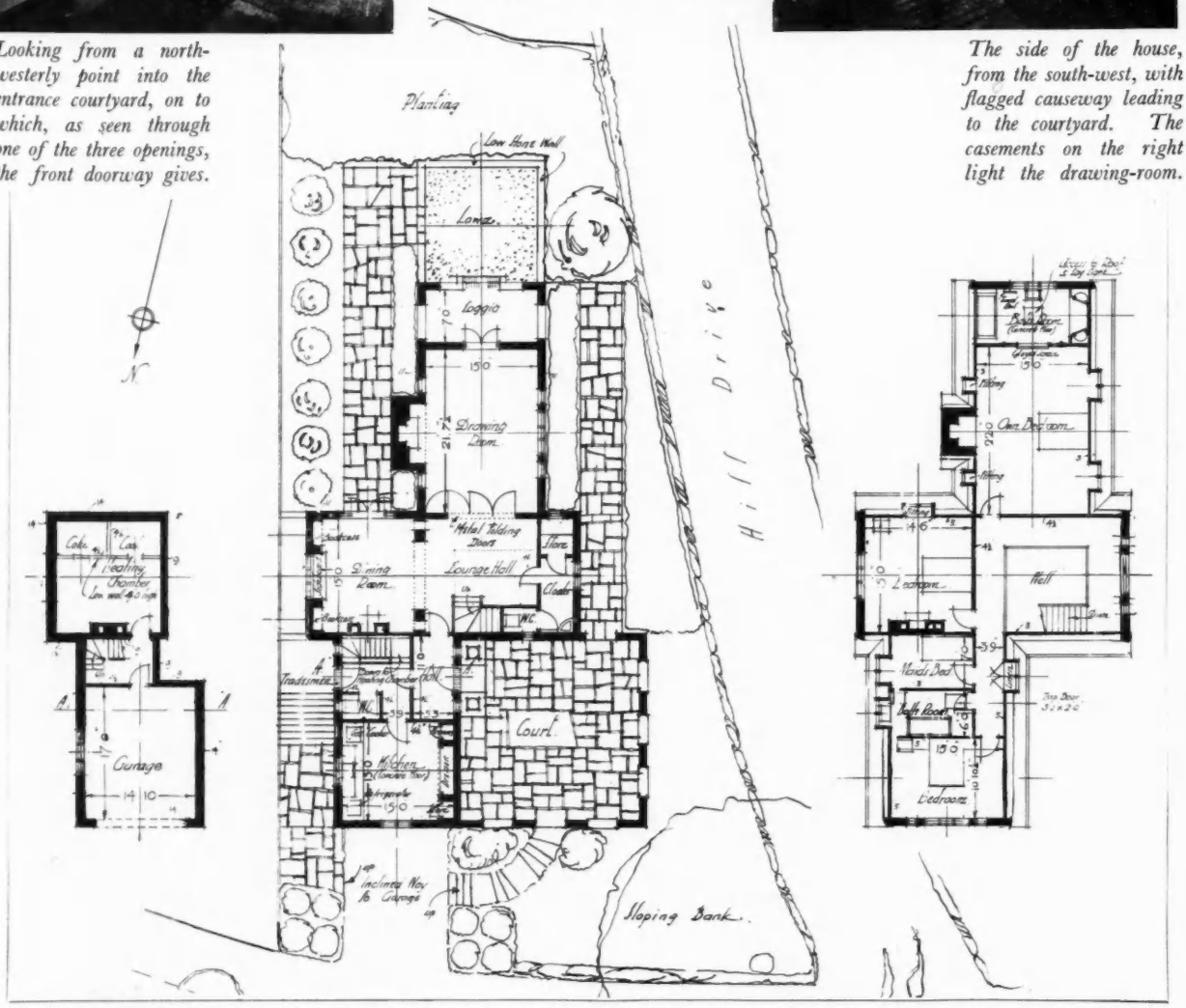
WITH the narrow, irregular site, sloping down from south to north, in view, it was decided to plan the main front facing towards a side road on the west, and to turn the difference in levels to account by placing a garage and heating chamber under the entrance hall and kitchen, and dining room, respectively. The house is built with 11-inch cavity walls, rendered externally with two coats of Portland cement, roofed with tiles of half-round Spanish type, fitted with metal casements.



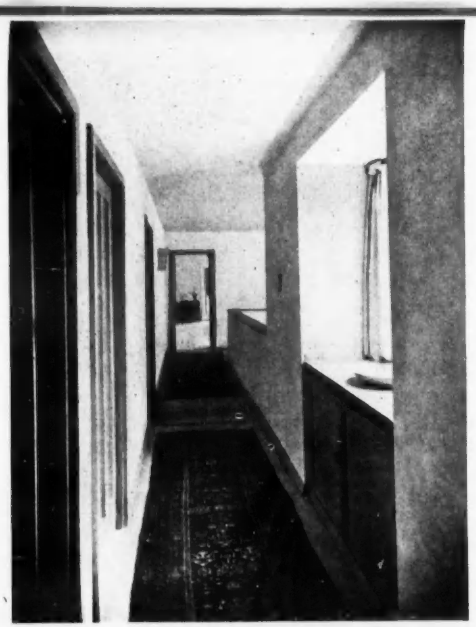
Looking from a north-westerly point into the entrance courtyard, on to which, as seen through one of the three openings, the front doorway gives.



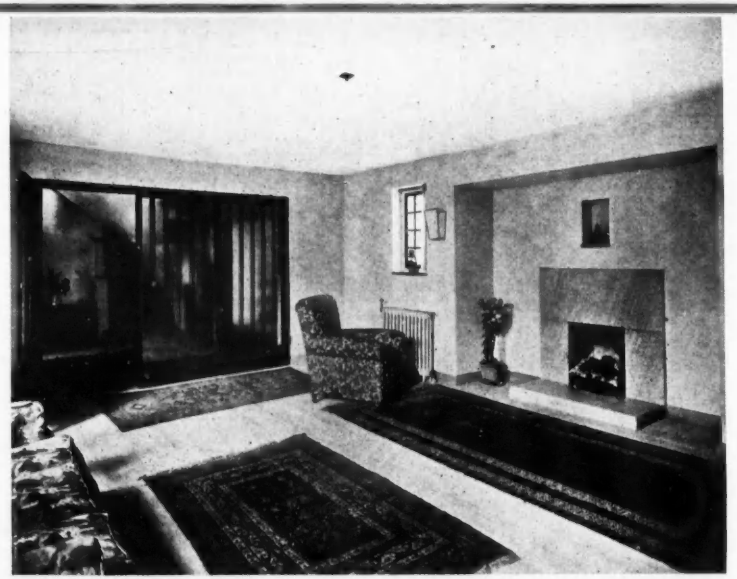
The side of the house, from the south-west, with flagged causeway leading to the courtyard. The casements on the right light the drawing-room.



The architect's drawing of the site and ground-floor plan, with, on the left, the basement quarters, and, on the right, the first floor, indicate the conditions imposed and the manner in which they have been met. Extensive use has been made of stone flagging, and this, together with the courtyard and the southerly-looking loggia, heightens the suggestions of sub-tropical character induced by the design itself.



The first-floor corridor, looking towards the best bedroom. There is a linen-cupboard under the window seen on the right, and beyond is the landing surrounding the stair-well.



A dove-grey marble surround embellishes the fireplace in the drawing-room. The walls were finished parchment colour, the plaster being left from the wood float. On the left are glazed metal folding doors to the large lounge hall, forming, together with the open dining-room, an L-shaped suite unusually spacious. The floors are of narrow oak boarding, secret-nailed and polished.

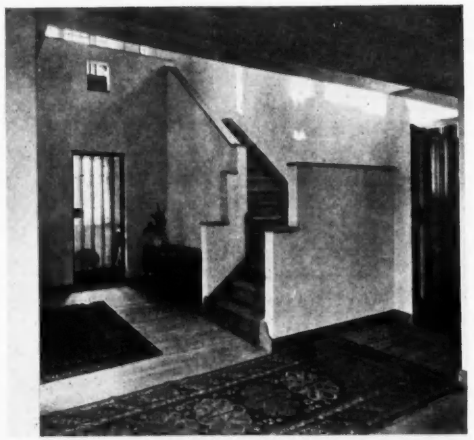


One of the glazed metal doors—that between the entrance and lounge halls—of which sole use is made in the principal entertaining rooms. A glimpse is seen of the front door beyond.

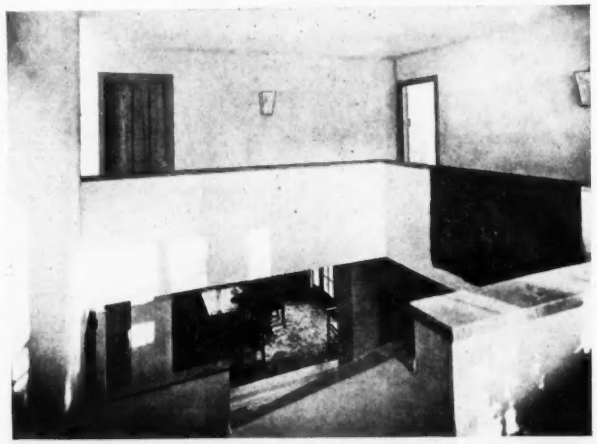


House at Norbury, S.W.]

The dining-room, from the lounge hall, showing at the far side the recess expressly designed for the sideboard, with a high window above it; and, on the left, the built-in gas fire.



The stairs are of solid 4½-in. brickwork, plastered both sides, and capped—like the window sills—with green marble. The metal door leads to the cloakroom; above is an opening to pass a beam of westerly sunshine from the landing.



[*By G. Alan Fortesçue.*

The stairs, with a glimpse of the dining-room, seen from the landing above, which surrounds the staircase well on three sides, the line of the third side being prolonged to form the bedroom corridor.

LITERATURE

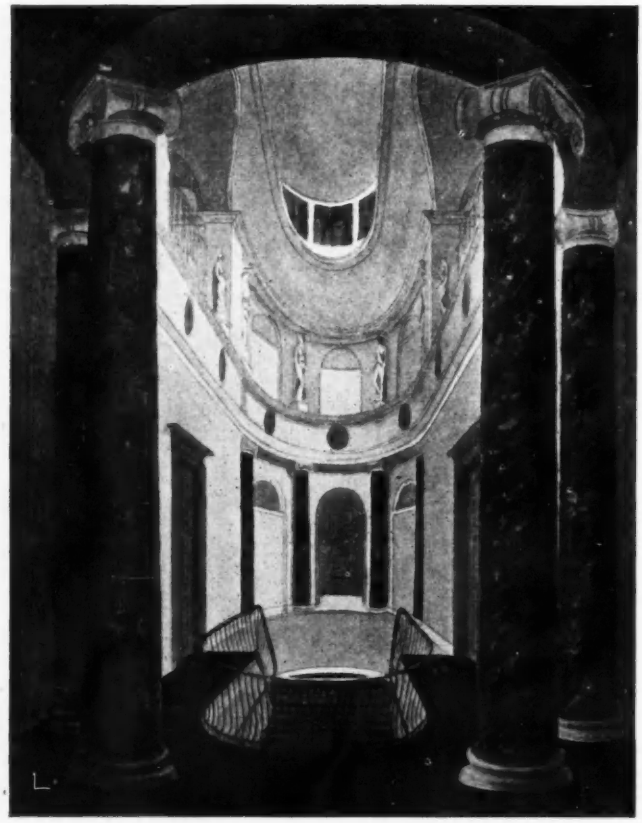
SOANE'S LECTURES

SIR JOHN SOANE lived and worked in a time of transition very like our own, when Europe was exhausted by a great war and endeavouring to adjust pre-war finance to post-war conditions. It was, also, a time when new ideas in religion, politics and business were in the air, and men were prepared to accept new thoughts. Although the Napoleonic wars deprived Soane of the great opportunities he might have had, the limitation of cost that they imposed probably stimulated his inventive faculties, as similar conditions are stimulating the imagination of Continental architects today; his later work surely justifies the title that he has been given—" the first of the moderns."

Another factor that has brought his name into prominence of recent years is the demolition of the greater part of his masterpiece, the Bank of England, where, however, the exterior walls are being preserved in an attempt at the same time to respect Art, Sentiment and the Ancient Lights of the adjoining buildings.

Like so many innovators, Soane was subjected to much abuse and contumely during his lifetime, and, in spite of his merits, he did not have the permanent influence on the course of architectural history that he might have had. In the first place, with the exception of the Bank, he did not carry out any work of prime importance. Had his scheme for rebuilding the House of Lords been built, it has been suggested that its influence might have been far-reaching in reinforcing the Renaissance tradition and helping it to withstand the shocks delivered by the Gothic revivalists, and so preventing the chaos that reigned during the second half of the nineteenth century.

Such speculations, though fascinating, are fruitless, and we must face the facts as they are and consider the work that he actually left. Besides its originality, it shows a scholarly appreciation of Greek architecture and an understanding of the principles upon which it was based, but without pedantic insistence on precedent. His admirably logical mind is well shown in the interiors that he designed, where he rejects the cornice and other projecting members, obtaining his effects by incised lines, in the form of grooving or fluting, which, when employed in his plaster domes and vaults, produced some of his most unusual and characteristic effects.



Staircase, Buckingham -House, Pall Mall. Sir John Soane, 1794. Drawn by G. Basevi. (Destroyed.)

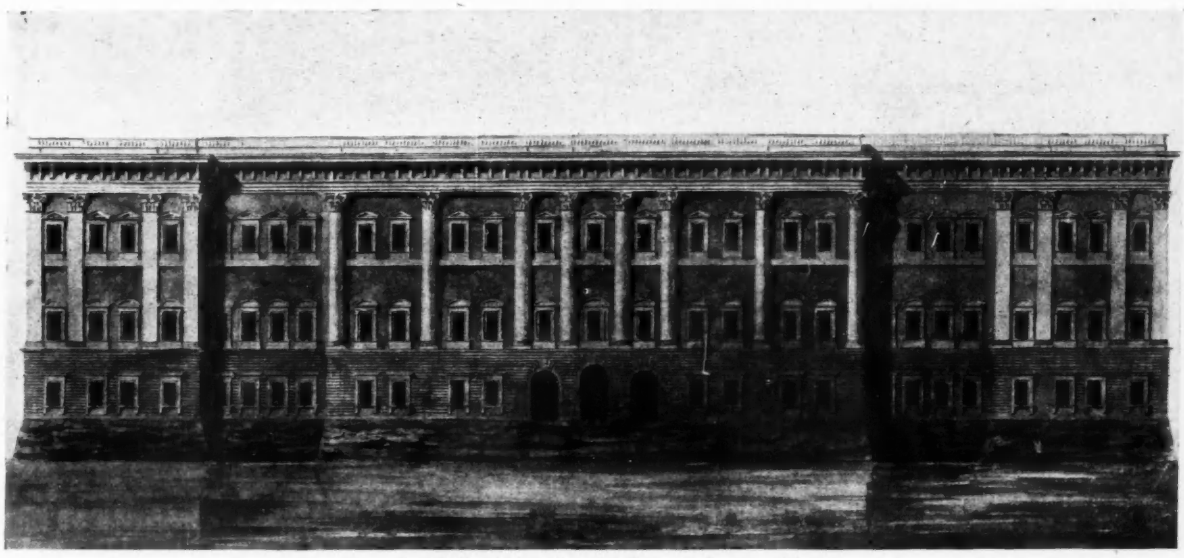
[*From* Sir John Soane, R.A., Lectures.

In the year 1806 Soane was appointed Professor of Architecture at the Royal Academy Schools, and he took his duties in no light spirit. In spite of his large practice, he devoted three years to the preparation of his lectures, which, however, were not published until recently, when Mr. Arthur T. Bolton, in conjunction with the editor of the *Architectural Association Journal*, printed them from the ten manuscript volumes in the Soane Museum. The preparation of the lectures, besides entailing a great deal of reading, necessitated the making of many large drawings, and his pupils and assistants made no less than 2,000, mostly measuring 4 ft. by 2 ft., some of which are extremely fine; a selection of 120 are reproduced in half-tone in this volume, the Editor having selected those illustrating less familiar buildings. This stupendous work shows how seriously Soane took his duties and the high degree of public spirit that animated him.

The lectures themselves cover the entire architectural field as it existed at the beginning of the nineteenth century. Soane traces, in the usual way, the development of architecture from the earliest period with, of course, special emphasis on Greece and Rome and upon Palladio in the Renaissance. The mediæval epoch is by no means ignored or considered unsympathetically. In England he devotes most space to a critical examination of the works of Inigo Jones and Vanbrugh, for whom he had a great admiration; while Robert Adam, who at the time he was writing was sadly out of fashion, receives generous praise.

Although the bulk of the lectures are devoted to the historical and the critical, practical considerations are not ignored. He fully realized the importance of good construction, and many of the drawings are diagrams of constructional methods in various materials. He also deals with such allied subjects as dry rot, methods of heating, town planning and gardening, and the leasehold system.

In his introduction the Editor gives a list of some of the students who attended these lectures; they included H. L. Elmes, C. R. Cockrell, Gilbert Scott and Raphael Brandon. While the latter two do not seem to have been affected, Cockrell and Elmes were undoubtedly profoundly influenced, as is shown by St. George's Hall, Liverpool, the one important building that shows unmistakable traces of the influence of his practice and teaching. Mr. Bolton is certainly to be thanked for arranging for the publication of these lectures, which are so valuable for sound criticism of the architecture of the past (which is for the most part acceptable today), and for their



From Sir John Soane, R.A., Lectures.] *Bernini's design for the Louvre, Paris, 1665.* [*Edited by Arthur T. Bolton.*

expression of the point of view of a nineteenth-century architect, who was also one of the most interesting personalities of the day. GRAHAME B.TUBBS

Lectures on Architecture. By Sir John Soane, R.A. Edited from the original MS. by Arthur T. Bolton, F.S.A., F.R.I.B.A. 1929. 120 plates. Publication of Sir John Soane's Museum. No. 14. Price 10s. 6d. net.

BRISTOL AND BATH REGIONAL PLANNING SCHEME

THOSE who have read the novel, *Jew Süss*, will remember the vivid description of the country over which the story ranges. The author, wishing to indicate in as few words as possible the historical setting of the novel, adopted a method that Hardy used in the *Dynasts* and presented his readers with a living and moving map, to be seen sometimes in the whole, and at other times in its nearer, smaller parts. This remarkable achievement of dramatization should hang by the desk or bedside of every town planner, for it contains the spirit of his job.

A regional report, because it addresses itself to local government officials and others who are presumed to be interested in the administration and development of the country, has no chance of being read *and acted upon*, unless the information which it has to bring is set forth in such a way as will make good reading. Regional reports are largely advisory. They are informative, bringing to committees appointed to administer comparatively new town-planning legislation, facts, knowledge *and opinions* hitherto unknown. The attitude of mind which it is the work of regional reports to foster is not always that of small officials. It is broad and impersonal. It co-ordinates and overrides; it is inimical to personal speculation and all profits made at the expense of the community.

It will be seen, therefore, that, however willingly these reports are accepted by those who have asked for them, the fight for the principles of regional planning has only its preliminary skirmishes in the open; the word must penetrate into the jungle beyond before good can come of it.

These reflections have arisen while reading the Regional Report which Professor Patrick Abercrombie, in collaboration with Mr. Brueton, has prepared for the district of Bristol and Bath. The interesting country covered by the report stretches from the line of the Avon, north to the Cotswolds and south to the Mendips, and contains, in violent contrast, all the features of urban and rural growth. Rather more than half the report is devoted to a more than usually thorough survey of the region, and it is written as a story of the growth, from earliest times, of this tract of England, told in as dramatic a manner as the subject allows, and illustrated at every turn with maps and photographs—the maps as useful as they are decorative.

The dramatic presentation of fact as part of a slowly unfolding story would make the survey interesting reading without the inclusion of a landscape survey. This very useful section of the report, laying particular stress upon what is usually taken for granted, opens up new prospects for regional planning, as it seeks to further the labours of the C.P.R.E.

It reads naturally with later proposals for a system of regional open spaces, special landscape and rural reservations, which Commander Hilton Young's Amenities Bill would make possible.

There is a careful study of disfigurements in which occurs the best analysis of the ribbon development phenomena I have ever read.

Part I. of the report having described the region, Part II. outlines its suggested development. The whole is then again described in order to indicate the effect of the scheme upon every place in it, while in the last part the methods of realizing the scheme are indicated, together with a chapter on landowners, whom everyone wishes to interest in town planning.

Throughout, this report breathes the spirit of growth and change, directed by a study of present-day problems in the light of an imaginative study of the past. E. MAXWELL FRY

The Bristol and Bath Regional Planning Scheme. Prepared for the Joint Planning Committee of local authorities by Patrick Abercrombie, F.R.I.B.A., and Bertrand F. Brueton. The University Press of Liverpool, and Hodder and Stoughton, Ltd.

Publications Received

Modern Bridge Construction. By F. Johnstone Taylor. London: Crosby Lockwood and Son. Price 15s. net.

The Arts in Early England. Vol. VI.: Part I. By G. Baldwin Brown, M.A., LL.D., F.B.A. London: John Murray. Price 15s. net.

The Art and Practice of Sketching. By Jasper Salwey. London: B. T. Batsford. Price 12s. 6d. net.

Mastering a Metropolis. By R. L. Duffus. London: Harper Bros. Price 10s. 6d. net.

Twentieth Century Sculpture. By Stanley Casson. London: Oxford University Press. Price 9s. net.

A Miniature History of European Art. By R. H. Wilenski. London: Oxford University Press. Price 4s. 6d. net.



Belfry at Veere, Holland.
By John E. Deleuse (Watercolour).



Mont St. Michel, Brittany.
By Maxwell Ayrton (Pencil).



Church near Landrecies, Flanders.
By Stanley J. Wearing (Pencil).



Brick Piers and Iron Gates at Chelsea.
By Morrall Maddox (Charcoal).

THE SKETCH CLUB

SIXTH SESSION

CLEARLY, members have yielded to the roving impulses engendered by these summer days; nor can the hanging committee remain immune. With appetites whetted by private glimpses of the firstfruits of the Holiday Sketches Competitions, they already range far afield. This time the sketches are left to tell their own tale, and it is one of holidays. Particulars of the Competitions, the first closing on July 15, appear on advertisement page xlvi.



House with bow windows and balcony, in Exeter.
By J. D. M. Harvey (Pencil).

Brick Piers and Iron Gates at Chelsea.
By Morrall Maddox (Charcoal).

the first closing on July 15, appear on advertisement page xlvi.

House with bow windows and balcony, in Exeter.
By J. D. M. Harvey (Pencil).



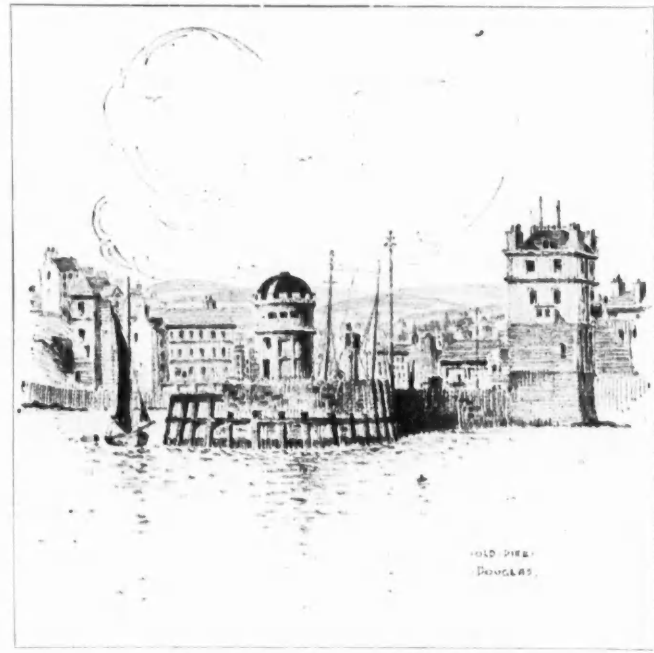
At Ballaugh, north-west coast, Isle of Man.
By Wilfrid Quayle (Pencil).



The Manor Gate-House.
By J. D. M. Harvey (Pencil).

St. Catherine's Light-house, Isle of Wight.
By E. B. Musman (Watercolour).

At Stow-on-the-Wold, Gloucestershire.
By E. B. Musman (Pencil).



From the Sea, Douglas, Isle of Man.
By Wilfrid Quayle (Pencil).





IN PARLIAMENT

[BY OUR PARLIAMENTARY REPRESENTATIVE]

Post-War Housing Subsidies

AT question-time in the House of Commons Mr. Greenwood informed Sir K. Wood that the total amount paid in housing subsidies from 1918 to the present date was £86,954,799. The amounts paid in the twelve months up to June 30, 1928, and June 30, 1929, were £9,810,454 and £10,781,252 respectively.

Mr. Winterton asked the Minister of Health, whether, in order to reduce the present housing shortage, he was prepared to consider the question of extending the present housing subsidy to owners of small plots of ground in order to enable them to build houses thereon for their own occupation.

Mr. Greenwood said that the suggestion would require legislation, which he could not see his way to introduce.

Prices of Parlour and Non-Parlour Houses

Mr. Greenwood told Sir K. Wood that the following statement showed the average price of non-parlour and parlour houses, respectively, included in contracts let by, or in direct labour schemes of, local authorities in England and Wales, during each month since June, 1928 :—

Month.	Year 1928-29.		Year 1929-30.	
	Non-parlour houses.	Parlour houses.	Non-parlour houses.	Parlour houses.
	£	£	£	£
June ..	356	426	355	404
July ..	366	434	337	377
August	349	417	348	409
Sept. ..	365	429	347	423
Oct. ..	369	427	344	419
Nov. ..	354	417	341	427
Dec. ..	338	429	370	404
Jan. ..	341	422	321	434
Feb. ..	344	393	346	416
Mar. ..	336	420	338	410
April ..	348	401	346	395
May ..	344	406	328	395

Town-Planning Schemes

Mr. Greenwood further informed Sir K. Wood that the number of town-planning schemes finally approved and put into force since the beginning of June, 1929, was four, the number approved between June, 1928, and June, 1929, was four, and the number approved prior to June, 1928, was 26.

Slum-Clearance Schemes

Sir K. Wood asked the Minister of Health if he would state the number of slum-clearance schemes confirmed, fully completed, and in course of execution since June, 1929, and similar information up to June, 1928 and 1929, respectively, or latest convenient date.

Mr. Greenwood said the last complete year in respect of which figures were available on the subject was that ended March 31, 1930. The following statement accordingly gave the desired information, so far as it was available, for that and the two preceding years :—

—	Period.		
	April 1, 1927, to March 31, 1928.	April 1, 1928, to March 31, 1929.	April 1, 1929, to March 31, 1930.
Slum clearance schemes :			
Confirmed during the period ..	18	10	—
Completed during the period ..	8	14	17
In course of execution at end of period ..	98	94	77

Asked by Sir K. Wood how many buildings had been taken possession of by local authorities, including those taken only for the purposes of making schemes efficient under improvement or reconstruction schemes, since June, 1929, or the latest convenient date—

Mr. Greenwood said that the only available information related to the number of buildings acquired by local authorities in connection with approved slum-clearance schemes. For the period between June 30, 1929, and March 31, 1930, that number was approximately 700.

Housing (Rural Workers) Act

Sir K. Wood inquired of the Minister the number of houses, since June, 1929, up to the latest convenient date, each month, on which work had been finished or was in progress under the Housing (Rural Workers) Act, by local authorities, and similar information up to June, 1928 and 1929.

Mr. Greenwood said that returns showing progress under the Housing (Rural Workers) Act, 1926, were rendered quarterly, and it was therefore not possible to give monthly figures. The following statement showed the number of dwellings on which work was finished during each quarter since that ended June 30, 1927, and the number on which work was in progress at the end of each such quarter.

Quarter ended :	Number of Dwellings on which work was :	
	Finished during the Quarter.	In progress at the end of the quarter.
June 30, 1927	—	5
Sept. 30, 1927	—	16
Dec. 31, 1927	11	89
Mar. 31, 1928	33	176
June 30, 1928	118	328
Sept. 30, 1928	181	518
Dec. 31, 1928	283	563
Mar. 31, 1929	210	594
June 30, 1929	270	616
Sept. 30, 1929	296	632
Dec. 31, 1929	267	650
Mar. 31, 1930	253	771

Mortgage by Building Societies

Mr. Clynes, the Home Secretary, informed Sir K. Wood that the Chief Registrar of Friendly Societies informed him that the total amount advanced on mortgage by building societies from 1901 to 1929 was in round figures £607,000,000, and that the amounts advanced each year since 1918 were as follows :

	£
1918	6,970,986
1919	15,840,961
1920	25,094,961
1921	19,673,400
1922	22,707,799
1923	32,015,720
1924	40,584,606
1925	49,822,473
1926	52,150,941
1927	55,886,903
*1927-1928	11,189,159
1928	58,664,684
1929	74,718,746

*Advances which were not included either for 1927 or 1928 owing to alteration of year-end, for which returns were abstracted, from December 31 to January 31.

State-Assisted Houses

Mr. Greenwood informed Mr. Ramsbottam that during the twelve months ended May 31, 1930, the number of completed houses ranking for subsidy was 99,124. The corresponding number during the previous twelve months was 107,439.

Mr. Simon asked the Minister of Health if he would give the number of houses finished under the various Housing Acts, and the number without subsidy for each quarter from June, 1929, onwards.

Mr. Greenwood said that the following statement gave the desired particulars so far as State-assisted houses in England and Wales were concerned :—

Quarter ended.	Number of State-assisted houses completed during the quarter under the :		
	Housing, Town Planning, etc., Act, 1919.	Housing, etc., Act, 1923.	Housing (Financial Provisions) Act, 1924.
Sept. 30, 1929	18	39,227	17,730
Dec. 31, 1929	14	—	14,507
Mar. 31, 1930	—	—	10,571

Returns as to houses erected without State assistance were obtained half-yearly only. The number of such houses of a rateable value not exceeding £78 (or £105 in the Metropolitan Police District) erected during the six months ended in September last was 38,298, and during the six months ended in March last, 53,393.

The Government's Slum Bill

Standing Committee A of the House of Commons, which is considering the Housing (No. 2) Bill, have agreed to Clause 23, which provides for Exchequer contributions to the expenses of local authorities in providing accommodation for persons displaced from slum areas. The State grant is based, under the Clause, on the number of persons removed from slum conditions and re-housed, the amount being fixed at £2 5s. per head in urban areas, £2 10s. in rural areas, and £3 10s. in congested areas, where tenements of more than three stories are to be built on land costing more than £4,000 an acre. The grants are intended to enable the persons displaced to pay the rents of their new dwellings, and will be payable annually for a period of 40 years.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquirics concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

17872. Aluminiumerz Bergbau und Industrie Akt.-Ges. Production of material for building, etc. June 10.

18053. Hood, A. Reinforced-concrete sheet piling. June 12.

SPECIFICATION PUBLISHED

330416. Commin, F. J. Roofing and like sheets, and the formation of roofs and like building-structures from said sheets.

THE ARCHITECTS' DIARY

WEDNESDAY, JULY 2

R.I.B.A., 9 Conduit Street, W.1. Exhibition of Models, masonry specimens, drawings and photographs of St. Paul's Cathedral. 10 a.m. to 8 p.m. (Saturdays, 5 p.m.). Extended until July 5th.

ROYAL ACADEMY, Burlington House, S.W. Summer Exhibition open to the public. Open until September. **10 a.m.**

HAMPSHIRE AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION. Annual Exhibition to be held at Portsmouth until July 8.

INSTITUTE OF QUARRYING. At the Grand Hotel, Scarborough. Annual Conference until July 6.

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. **10 a.m.**

KINGSTON-UPON-THAMES PUBLIC BATHS COMPETITION. Exhibition of designs at the Tiffin Boys' School (old building) until July 23. 2 p.m. to 8 p.m. **2 p.m.**

THURSDAY, JULY 3

ASSOCIATION OF MANAGERS OF SEWAGE DISPOSAL WORKS. Annual Summer Conference at the Town Hall, Sheffield. Papers will be read on "Small Bio-aeration Plants," by Dr. H. Kessener, Director, Government Institute for Purification of Waste Waters, The Hague; and "Biological Notes on Sewage Disposal Processes," by Mr. Harold Taylor, Chief Technical Assistant, Sewage Disposal Works, Sheffield.

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Assembly of Faculties. Session ends.

FRIDAY, JULY 4

LIVERPOOL SCHOOL OF ARCHITECTURE. At the Walker Art Gallery, Liverpool, Annual Exhibition of Architectural Drawings, to be opened by Mr. & Mrs. Clough Williams-Ellis at 3.30 p.m. Exhibition open to the public from July 5 to July 19, from 10 a.m. to 6 p.m. **3.30 p.m.**

SOUTH-EASTERN SOCIETY OF ARCHITECTS. At South-Western Hotel, Southampton. Joint Meeting with the Hampshire and Isle of Wight Architectural Association. Reception by the President of the Hampshire and Isle of Wight Architectural Association followed by "The Problem of the Bar Gate, Southampton," explained by Lieut.-Col. H. P. Cart de Lafontaine. **8.30 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Evolution of the Chair." By T. F. Wilson, F.R.S.A.I. **12 noon.**

SATURDAY, JULY 5

Sunrise, 4.49 a.m. Sunset, 9.19 p.m.

R.I.B.A., 9 Conduit Street, W.1. Tour to United States and Canada by the Cunard Liner "Samaria." Returning on July 25. Members wishing to take part in the trip should apply to H. T. Leese, 26-27 Cockspur Street, London, S.W.1.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. At Southampton. Assemble at Marlands Parking Place for visits to Southampton War Memorial, New Town Hall, Empire Theatre. Lunch 1.30 p.m. at the South-Western Hotel. Afternoon visits to the Docks and inspection of a liner. **10.30 a.m.**

WORTHING MUNICIPAL BATHS COMPETITION. Latest date for submission of designs.

SUNDAY, JULY 6

SOUTH-EASTERN SOCIETY OF ARCHITECTS. At Southampton. Excursion to Romsey and the New Forest.

MONDAY, JULY 7

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Exhibition of Egyptian and Palestinian Antiquities. Until July 26. 10 a.m. to 5 p.m. (July 15 and 25, 6.30 to 8 p.m.) **10 a.m.**

HOLOPHANE CONFERENCE OF FOREIGN AFFILIATIONS. At Messrs. Holophane's Offices, Elverton Street, Vincent Square, S.W.1. (July 7 and 8). Also a dinner will be held on July 7 at the Trocadero Restaurant, Piccadilly Circus, W.1. Speakers at the Conference will include Dr. J. W. T. Walsh, Professor Dr. J. Teichmuller, G. Grey Wornum, Howard Robertson and J. S. Dow.

TUESDAY, JULY 8

TOWER OF LONDON, E.C.3. "The Tower in Stuart Times and After." By Allen S. Walker. **11 a.m.**

WEDNESDAY, JULY 9

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. At Scarborough. Annual Meeting and Conference. Until July 12.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Architecture (1)." By L. O. Faraker. **3 p.m.**

THURSDAY, JULY 10

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Architecture (2)." By L. O. Faraker. **12 noon.**

BRITISH MUSEUM, W.C.1. "Origins of Architecture—I. Greek," By Cecil Hallett, B.A., F.S.A. **12 noon.**

FRIDAY, JULY 11

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Annual River Trip. Visit to the West India Docks. The party will leave Westminster Pier at 2 p.m. Tickets 8s. 6d. (including tea). **2 p.m.**

SATURDAY, JULY 12

Sunrise, 4.56 a.m. Sunset, 9.14 p.m.

MONDAY, JULY 14

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Ironwork." By L. O. Faraker. **3 p.m.**

TUESDAY, JULY 15

TOWER OF LONDON, E.C.3. "The Tower in Norman Times." By Allen S. Walker. **11 a.m.**

WEDNESDAY, JULY 16

ARCHITECTURAL ASSOCIATION, 36 Bedford Square, W.C.1. Annual Excursion to Denmark and Sweden, returning to London on July 29. Particulars of the tour, etc., are obtainable from F. R. Yerbury, Secretary, Architectural Association.

INTERNATIONAL CONFERENCE of Union Internationale des Villes and Pouvoirs Locaux. At Liége. July 16–17.

FRIDAY, JULY 18

BRITISH STEELWORK ASSOCIATION. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "Skyscrapers in America." By G. E. J. Pistor. 5.30 p.m. (Tea will be served at 4.45 p.m.) **5.30 p.m.**

INTERNATIONAL CONFERENCE of Union Internationale des Villes and Pouvoirs Locaux. At Antwerp. July 18–19.

SATURDAY, JULY 19

Sunrise, 5.4 a.m. Sunset, 9.8 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Indian Section: "Architecture." By Miss M. Chamot. **3 p.m.**

MONDAY, JULY 21

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "English Seventeenth Century Furniture." 3 p.m. Both lectures by L. O. Faraker. **12 noon.**

TUESDAY, JULY 22

TOWER OF LONDON, E.C.3. "The Tower in the Middle Ages." By Allen S. Walker. **11 a.m.**

THURSDAY, JULY 24

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Eighteenth-Century Furniture." By L. O. Faraker. **12 noon.**

"Italian Furniture." By Miss M. Chamot. **7 p.m.**

BRITISH MUSEUM, W.C.1. "Origins of Architecture—II. Roman, etc." By Cecil Hallett, B.A., F.S.A. **12 noon.**

FRIDAY, JULY 52

R.I.B.A., 9 Conduit Street, W.1. Visit to U.S.A. Arrival of S.S. "Ascania" at Plymouth.

SATURDAY, JULY 26

Sunrise, 5.13 a.m. Sunset, 8.59 p.m.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Visits to Leeds Castle, Chilham or Bodiam, etc., organized by the Canterbury and Tunbridge Wells Chapters. Particulars of the visits are obtainable from the Hon. Secretaries of the Chapters.

MONDAY, JULY 28

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Decoration." By Miss M. Chamot. **3 p.m.**

THURSDAY, JULY 31

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Alfred Stevens." By Miss M. Chamot. **3 p.m.**

LUTON TOWN HALL COMPETITION. Latest date for submission of designs.

DUDLEY SCHOOL COMPETITION. Latest date for submission of designs.

LAW REPORTS

REVOCATION OF RIGHT TO STALL SITE

Pennington and Others v. *Jarvis. King's Bench Division. Before Mr. Justice Rowlatt*

THIS action concerned a dispute as to the right to revoke a licence granted in respect of a stall on a yard, plaintiffs, the landlords, claiming an injunction to restrain defendant from trespassing on their soil in a passageway at Watford, approached from the High Road, by carrying on part of his business there.

Plaintiffs, the landlords, held a lease of the land, including the right of the soil in the passageway, and shops being erected, the defendant held a lease of one from the plaintiffs, carrying on a grocery business. The plaintiffs granted the defendant a licence to erect a stall on a certain area, reserving the right to revoke the licence in certain events. The local authority having acquired the market rights of Watford, plaintiffs revoked the licence. As the defendant continued to place goods on the spot plaintiffs brought this action, contending that defendant was trespassing.

Defendant submitted that the plaintiffs had no real ground for revoking the licence and claimed the right to continue the stall.

His lordship said the defendant felt some sort of grievance, but that did not justify his action. It was quite clear that the defendant had no right to put his goods and generally carry on business on the soil in question. It was fallacious to say he had done it because he lost his licence for the stall. Under these circumstances plaintiffs were entitled to their injunction with costs.

ALLEGED BREACHES OF BUILDING COVENANTS

Brighton Downs Estate Co. v. *Hardiment. Chancery Division. Before Mr. Justice Farwell*

THIS was an action by the Brighton Downs Estate Co. against the defendant for an injunction restraining alleged breaches of covenants in the conveyance to the defendant of five-acre plots on the defendant's estate.

Mr. Roxburgh, for the plaintiffs, said their complaint was that, although the covenants prohibited the erection of more than one detached house or a pair of semi-detached houses on each plot, and the granting of any right-of-way, the defendant had built three bungalows on one plot and proposed to erect twenty-six altogether, thus creating a miniature estate in the centre of the plaintiffs' property.

Mr. Harvey, managing director of the plaintiff company, admitted that, owing to war conditions, the housing problem and the cost of materials, some of the plot-holders had obtained considerable concessions from the company, but no general right was conceded. Supposing the defendant was right in his contentions, the company would have no control over the estate and it would become a number of miniature estates.

Evidence was called on behalf of the plaintiff company to show that the effect of the proposed erection by the defendant of twenty-six bungalows would be seriously to depreciate the value of the unsold plots.

The defence set up was a denial of any breach of the stipulations in the conveyances, a plea of laches and acquiescence on the part of the company, and an assertion that the company, by allowing the erection of huts, etc., had converted the estate into a "shack town," to the depreciation of the defendant's property.

Evidence was called to show that there was no concealment as to the erection of the three bungalows, and that the effect of the erection of twenty-six bungalows on the value of the unsold plots would be *nil*.

Mr. Bonner, for the defendant, contended that the restrictive covenants were ambiguous and difficult to understand, and submitted that where they had stipulations of the kind the law would not enforce them. Here there had been so much acquiescence by the plaintiff company in changes of the original building scheme, that the company had disentitled themselves to an injunction and were barred from enforcing as against the defendant the covenants in question. Under the original building scheme the plot-holders purchased their plots on the understanding that there would be a mutual enjoyment of the amenities of the estate. Could the company allow some plot-holders to do what they liked and bind others to their covenants?

Mr. Roxburgh, replying, said the language of the covenants was perfectly clear. He was not asking for a mandatory injunction with regard to the three bungalows already erected, but he did ask for an injunction to restrain further breaches. Plaintiffs had done nothing to disentitle them to the relief they sought in this respect.

His lordship granted the plaintiff company an injunction restraining any further erections and the granting of rights-of-way, except to the owners of the existing bungalows, and the defendant must pay the costs of the action. What the defendant had done, he said, formed breaches of the covenant of his conveyances. The failure of the company to enforce the restrictions against other purchasers did not amount to a repudiation of the contract. The covenants reserved to the company the power to vary all or any of the stipulations. He had to consider that what the defendant proposed to do was to produce something on his plots in the nature of a small building estate of his own, and to commit a very serious breach of the covenants. The company had been easy-going, but their breaches had been merely unpleasant or unsightly and not serious. Under these circumstances he was bound to give them the order he had already indicated.

Mr. Bonner asked that the injunction should be stayed pending an arbitration before a local commissioner under the Law of Property Act.

His lordship granted the injunction for six months, and said if no application was then made to vary or discharge it, it would become perpetual.

COMPETITIONS OPEN

July 5.—The Worthing Corporation invites competitive designs for the erection of municipal buildings, etc., proposed to be erected in Chapel Road, Worthing. Assessor: H. V. Ashley, F.R.I.B.A. Premiums: £300, £250, £150 and £50. Application for particulars of the competition, etc., should be made to J. Kennedy Allerton, Town Clerk, Worthing. Deposit £1 1s. Latest date for submission of designs: July 5.

July 5.—The Royal National Eisteddfod of Wales, 1930. Competitions in the arts, crafts and science section. Assessor: Percy E. Thomas, F.R.I.B.A. The drawings are to be delivered to W. H. Protheroe, General Secretary, Eisteddfod Office, Llanelly, not earlier than July 1, 1930, nor later than July 5, 1930.

July 31.—The Luton Town Council invites architects to submit designs for the proposed town hall, which is to be built on the site of the old town hall at an approximate cost of £250,000. Assessor: Sir Brumwell Thomas, F.R.I.B.A. Premiums: £500, £300, £200 and £100. Particulars may be obtained on application to W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s. Latest date for submission of designs: July 31.

July 31.—The Dudley Education Authority invites architects having an office within a radius of fifteen miles of Dudley to submit competitive designs for a Council school to accommodate 320 children, to be erected on the Brewery Fields estate; also a school for 400 children on the Priory estate. Assessor: Herbert T. Buckland, F.R.I.B.A. Premiums: £150, £100, and £50. Applications for conditions of the competition, etc., should have been made to J. Whaley, Director of Education, Education Offices, St. James's Road, Dudley, by April 30. Deposit £1 1s. Latest date for submission of designs: July 31.

August 30.—The Carlisle Corporation invites British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. The site was previously occupied by the Prison. The total length of the frontage is approximately 358 ft. Assessor: Francis Jones, F.R.I.B.A. Premiums: £300, £200, and £100. Particulars of the competition, etc., may be obtained from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

September 1.—The Bangor (Co. Down) Borough Council invites architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor: Professor Patrick Abercrombie, F.R.I.B.A. Premiums: £150 and £50 for first and second places, respectively. Copies of the conditions and plans will be forwarded on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs: September 1.

September 30.—The Isle of Man Education Authority invites architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

No date.—The General Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums: £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2.

The awards in the Competition for the Proposed Drinking Fountain, Blackheath, have been made as follows:—

1st Premium £50, Ernest G. Theakston, F.R.I.B.A., of Wendover, Bucks.

2nd Premium £20, T. G. Richards, of 5 Stratford Place, W.1.

3rd Premium £10, G. I. C. Highet, A.R.I.B.A., of Bamborough, Horsell, Woking.

TRADE NOTES

On July 7 and 8 a conference of some of the foreign affiliations of Messrs. Holophane, Ltd., will be held at their offices in Elverton Street, Vincent Square, S.W.1. Among those present will be representatives from twenty-three countries. On the evening of July 7, a dinner will also be held at the Trocadero Restaurant, Piccadilly Circus, W.1, when speeches will be made by Dr. J. W. T. Walsh, President of the Illuminating Engineering Society, Professor Dr. J. Teichmuller, Director of the Lichttechnisches Institut, Karlsruehe, and Messrs. G. Grey Wornum, F.R.I.B.A., Howard Robertson, F.R.I.B.A., and J. S. Dow, Hon. Secretary of the Illuminating Engineering Society.

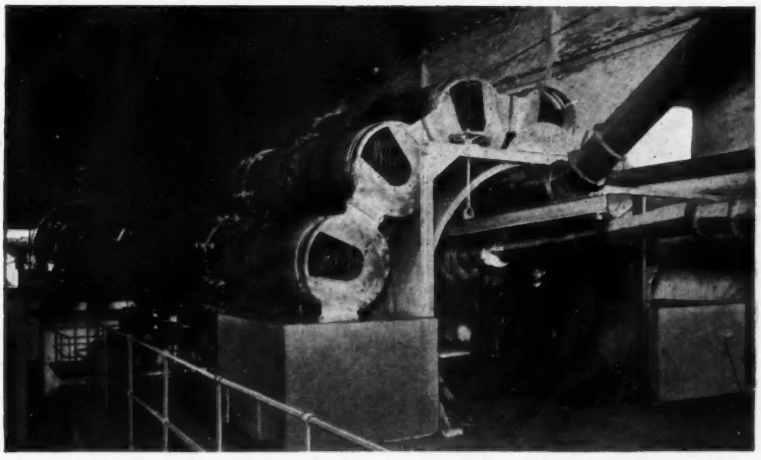
The rapid development through which the cement industry has passed during the last two or three decades is nowhere more apparent than in the process of burning. For this the invention and evolution of the rotary kiln is largely responsible. The accompanying illustration is reproduced from a booklet, describing the tunnel works at West Thurrock, Essex, just issued by the Tunnel Portland Cement Co., Ltd., and shows the latest of the company's four kilns. The kiln is 300 ft. long, and is capable of producing 100,000 tons a year. It will be noted from the illustration that the cooler forms an integral part of the kiln. This is a new type, known as the Unax kiln, which has been introduced by Messrs. F. L. Smidth and Co., Ltd., and is claimed to be one of the most efficient in existence. It is stated in the booklet that after the reconstruction of the works in 1911 the output was 60,000 tons a year, which was doubled immediately before the great war broke out. The output at present is 280,000 tons per annum. From the illustrations it is apparent that every care has been taken to construct a factory on the most efficient and economical lines. Not only has the best machinery been installed, but the works have been laid out in a way that ensures that the various manufacturing processes are easily and efficiently controlled. This is of the utmost importance when manufacturing a high-class product.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

City of Liverpool Housing Schemes (pages 7–10). Norris Green Estate: Principal contractors: Unit Construction Co., Ltd., Wilson Lovatt and Sons, Ltd., Hy. Boot and Sons (London), Ltd., and W. J. Simms, Son, and Cooke, Ltd. Larkhill Estate: Principal contractors: C. J. Doyle and Wm. Griffiths, Sons and Cromwell, Ltd. Melrose Road Tenements: General contractors: Unit Construction Co., Ltd. Springwood Estate: Principal contractors: J. Jones and Sons (Woolton), Ltd., and J. W. Jones and Sons, Ltd. Work on the Holly Street and Broadway sites were executed as follows: Holly Street, Wilson Lovatt and Sons, Ltd., demolition, excavation and foundations; Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, reinforced concrete; Penarth Co., artificial stone; Keele Tileries, Ltd., Keele hand-made tiles; Langley (London), Ltd., roofing felt; Pollock Bros., plaster. Broadway, Norris Green Estate: Unit Construction Co., Ltd., excavation, foundations and plaster; Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, reinforced concrete; Pearson Bros. and Campbell, artificial stone; G. W. Lewis Tileries, Ltd., Rosemary hand-made tiles; Langley (London), Ltd., roofing felt; International Trading Co., wood block flooring; T. Jones & Co., electric wiring; Morris Bros., plumbing; E. Wilson & Co., iron staircases; "Fosalsil" partitions by J. H. Sankey and Sons. "Workwell" grates and mantel register boiler grates manufactured by Triplex Foundry, Ltd., and supplied through M. T. Grey & Co., Ltd., for both jobs.

The Limbert Nurses' Home, near Manchester (pages 11–14). General contractors, J. Gerrard and Sons, Ltd., who were also responsible for the excavation, foundations, reinforced concrete, fireproof floor construction, plumbing and joinery. Subcontractors: Limmer and Trinidad Lake Asphalt Co., Ltd., dampcourses and asphalt; Middlewood Brick Co., facing bricks; J. C. Edwards (Ruabon), Ltd., facings for brick arches; F. M. and H. Nuttall, Ltd. (fixer only), stonework; Empire Stone Co., Ltd., artificial stone; Robinson and Kershaw, Ltd., structural steel; W. Marsden & Co., floor and wall tiling; "Fosalsil" blocks from J. H. Sankey and Son, Ltd.; Luxfer Ltd., patent glazing; Combined Concrete Construction Co., Ltd., wood-block flooring; Brightside Foundry and Engineering Co., Ltd., central heating; Edison Swan Electric Co., Ltd., electric light fixtures; Morrison, Ingram & Co., Ltd., sanitary fittings; Marley Bros., Ltd., door and window furniture; Humphries, Jackson and Ambler, Ltd., steel casements to lavatories and w.c.s; Automatic Sprinkler Co., Ltd., iron staircases; Hindshaw & Co., decorative plaster; Brookes & Co. (1925), Ltd., metalwork; John Line and Sons, Ltd., wallpapers; Newton Chambers & Co., Ltd., gas mantels, stoves, grates, and water tanks; Peter Ford and Sons, Ltd., "Pytho" plaster (plasterer, James Ward); Etchells, Congdon and Muir, Ltd., lifts.



One of the four latest kilns at the works of the Tunnel Portland Cement Company, Ltd. It is capable of producing 100,000 tons a year.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 8½	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EAST-BOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate ..	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_1	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_2	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

	s.	d.
Broken brick or stone, 2 in., per yd.	1	2
Thames ballast, per yd.	1	2½
Pit gravel, per yd.	1	1½
Pit sand, per yd.	1	2½
Washed sand, per yd.	1	2½
Screened ballast or gravel, add 10 per cent. per yd.		
Clinker, breeze, etc., prices according to locality.		
Portland cement, per ton £2 8 0	1	0½
Lias lime, per ton 2 0 0	1	2½
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.	1	1
Transport hire per day:	1	1
Cart and horse £1 3 0 *Trailer* £0 15 0	1	2½
3-ton motor lorry 3 15 0 *Steam roller* 4 5 0	1	2½
Steam lorry, 5-ton 4 0 0 *Water cart* 1 5 0	1	2½
EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0	1	2½
Exceeding 6 ft., but under 12 ft., add 30 per cent.		
In stiff clay, add 30 per cent.		
In underpinning, add 100 per cent.		
In rock, including blasting, add 225 per cent.		
If basketed out, add 80 per cent. to 150 per cent.		
Headings, including timbering, add 400 per cent.		
RETURN, fill, and ram, ordinary earth, per yd. £0 1 6	1	2½
SPREAD and level, including wheeling, per yd. 0 1 6	1	1
FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6	1	2½
TRIMMING earth to slopes, per yd. sup. 0 0 6	1	0½
HACKING up old grano. or similar paving, per yd. sup. 0 1 3	1	1½
PLANKING to excavations, per ft. sup. 0 0 5	1	2½
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.		
IF left in, add to above prices, per ft. cube 0 2 0	1	1½
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1	1	2½
DO. 6 in. thick, per yd. sup. . 0 2 10	1	2½
PUDDLING, per yd. cube . . . 1 10 0	1	2½
CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6	1	1½
DO. 6-2-1, per yd. cube . . . 1 12 6	1	1½
DO. in upper floors, add 15 per cent.	1	1
DO. in reinforced-concrete work, add 20 per cent.	1	1½
DO. in underpinning, add 60 per cent.	1	1
LIAS-LIME CONCRETE, per yd. cube . £1 14 0	1	1½
BREEZE CONCRETE, per yd. cube . 1 7 0	1	2½
DO. in lintels, etc., per ft. cube . 0 1 6	1	2½
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9	1	1½
FINE concrete benching to bottom of manholes, per ft. cube . . . 0 3 0	1	2½
FINISHING surface of concrete spade face, per yd. sup. 0 0 9	1	2½

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft. £0 0 10	1	1½
DO. 6 in., *per ft.* 0 1 3	1	0½
DO. 9 in., *per ft.* 0 2 3	1	2½
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd. 0 5 6	1	0½
DO. 6 in., *per yd.* 0 8 0	1	2½
Portland cement and sand, see "Excavator" above.	1	2½
Leadwool, per cwt. £2 0 0	1	0½
Gaskin, per lb. 0 0 4½	1	2½
STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3	1	2½
DO. 6 in., per ft. 0 5 0	1	2½
DO. 9 in., per ft. 0 7 9	1	2½
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3	1	1½
DO. 6 in., per ft. 0 10 3	1	1
Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.		
Fittings in Stoneware and Iron according to type. *See* Trade Lists.		

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M. £4 5 6	1	2½
Flettons, per M. 2 12 6	1	1½
White facing bricks, per M. 5 0 0	1	1
Multi-coloured facings, per M. 7 7 9	1	1½
Best red facings, per M. 7 7 9	1	1½
Rubbers, 9½ in., per M. 12 0 6		
Staffordshire blue, per M. 9 5 0	1	0½
Firebricks, 2½ in., per M. 9 5 0	1	0
Glazed salt, white, and ivory stretchers, per M. 21 10 0	1	2
DO. *headers, per M.* 20 10 0		
Colours, extra, per M. 5 10 0		
Seconds, less, per M. 1 0 0		
Cement and sand, see "Excavator" above.		
Lime, grey stone, per ton £2 11 6		
Mixed lime mortar, per yd. 1 6 0		
Dampcourse, in rolls of 4½ in., Per roll 0 2 6		
DO. 9 *in. per roll* 0 4 9		
DO. 14 *in. per roll* 0 7 6		
DO. 18 *in. per roll* 0 9 6		
BRICKWORK in stone lime mortar, Flettons or equal, per rod 30 0 0		
DO. in cement do., per rod 32 10 0		
DO. in stocks, add 25 per cent. per rod.		
DO. in blues, add 100 per cent. per rod.		
DO. circular on plan, add 12½ per cent. per rod.		
DO. in backing to masonry, add 12½ per cent. per rod.		
DO. in raising on old walls, etc., add 12½ per cent. per rod.		
DO. in underpinning, add 20 per cent. per rod.		
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup. . . £0 1 0		
BEDDING plates in cement mortar, per ft. run 0 0 3		
BEDDING window or door frames, per ft. run 0 0 3		
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run 0 0 2		
CUTTING do. in old walls in cement, per ft. run 0 0 4		
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup. 0 0 7		
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run 0 3 6		
DO. 14 ft. by 9 in. do., per ft. run . 0 6 0		
FLAUNCHING chimney pots, each . 0 2 0		
CUTTING and pinning ends of timbers, etc., in cement 0 1 0		
FACINGS fair, per ft. sup. extra . . 0 0 3		
DO. picked stocks, per ft. sup. extra. 0 0 7		
DO. red rubbers, gauged and set in putty, per ft. sup. extra . . 0 4 9		
DO. in salt white or ivory glazed, per ft. sup. extra 0 5 6		
TUCK pointing, per ft. sup. extra . 0 0 10		
WEATHER pointing, do. do. . . 0 0 3		
TILE creasing with cement fillet each side, per ft. run 0 6		
GRANOLITHIC PAVING, 1 in., per yd. sup. 0 5 0		
DO. 1½ in., per yd. sup. . . . 0 6 0		
DO. 2 in., per yd. sup. . . . 0 7 0		
If coloured with red oxide, per yd. sup. 0 1 0		
If finished with carborundum, per yd. sup. 0 0 6		
If in small quantities, in finishing to steps, etc., per ft. sup. . . 0 1 4		
Jointing new grano. paving to old, per ft. run 0 0 4		
Extra for dishing grano. or cement paving around gullies, each . . 0 1 6		
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup. 0 0 7		
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup. 0 8 0		
DO. vertical, per yd. sup. . . 0 11 0		
SLATE DAMP COURSE, per ft. sup. . 0 0 10		
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. . . 0 8 6		
DO. SKIRTING, 6 in. 0 0 11		
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. . . 0 5 3		
DO. DO. 3 in. 0 6 6		
BREEZE fixing bricks, extra for each . 0 0 3		

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 2½d. *per hour;* LABOURER, 1s. 3½d. per hour; SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:		
Whitbed, per ft. cube £0 4 6		
Basebed, per ft. cube 0 4 9		
Bath stone, per ft. cube 0 3 0		
Usual trade extras for large blocks.		
York paving, av. 2½ in., per yd. super. 0 11 0		
York templates sawn, per ft. cube . 0 7 6		
Slate shelves, rubbed, 1 in., per ft. sup. 0 2 6		
Cement and sand, see "Excavator," etc., above.		
HOISTING and setting stone, per ft. cube £0 2 2		
DO. for every 10 ft. above 30 ft. add 15 per cent.		
PLAIN face Portland basis, per ft. sup. £0 2 8		
DO. circular, per ft. sup. . . . 0 4 0		
SUNK FACE, per ft. sup. . . . 0 3 9		
DO. circular, per ft. sup. . . . 0 4 10		
JOINTS, arch, per ft. sup. . . . 0 2 6		
DO. sunk, per ft. sup. . . . 0 2 7		
DO. DO. circular, per ft. sup. . . 0 4 6		
CIRCULAR-CIRCULAR work, per ft. sup. 1 2 0		
PLAIN MOULDING, straight, per inch of girth, per ft. run . . . 0 1 1		
DO. circular, do., per ft. run . . 0 1 4		
HALF SAWING, per ft. sup. . . . 0 1 0		
Add to the foregoing prices, if in York stone, 35 per cent.		
DO. Mansfield, 12½ per cent.		
Deduct for Bath, 33⅓ per cent.		
DO. for Chilmark, 5 per cent.		
SETTING 1 in. slate shelving in cement, per ft. sup. £0 0 6		
RUBBED round nosing to do., per ft. lin. £0 0 6		
YORK STEPS, rubbed T. & R., ft. cub. fixed 1 7 6		
YORK SILLS, W. & T., ft. cub. fixed . 1 10 0		
ARTIFICIAL stone paving, 2 in. thick, per ft. sup. 0 1 3		
DO. 2½ in. thick, per ft. sup. . . 0 1 6		

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:		
Portmadoc Ladies £14 0 0		
Countess 23 0 0		
Duchess 32 10 0		
Old Delabole Med. Grey £45 1 0 *Med. Green*		
24 in. × 12 in. £42 11 3 £45 1 0		
20 in. × 10 in. 31 4 3 33 0 6		
16 in. × 10 in. 20 18 0 22 4 9		
14 in. × 8 in. 12 1 0 12 16 3		
Green Randoms, per ton 8 3 9		
Grey-green do., per ton 7 3 9		
Green peggies, 12 in. to 8 in. long, per ton 5 13 9		
In 4-ton truck loads, delivered Nine Elms station.		
Clips, lead, per lb. £0 0 6		
Clips, copper, per lb. 0 2 0		
Nails, compo, per cwt. 1 6 0		
Nails, copper, per lb. 0 2 2		
Cement and sand, see "Excavator," etc., above.		
Hand-made tiles, per M. £5 18 0		
Machine-made tiles, per M. 5 8 0		
Westmorland slates, large, per ton 9 0 0		
DO. *Peggies, per ton* 7 5 0		
SLATING, 3 in. lap, compo nails, Portmadoc or equal:		
Ladies, per square £4 0 0		
Countess, per square 4 5 0		
Duchess, per square 4 10 0		
WESTMORLAND, in diminishing courses, per square 6 5 0		
CORNISH DO., per square 6 3 0		
Add, if vertical, per square approx. 0 13 0		
Add, if with copper nails, per square approx. 0 2 6		
Double course at eaves, per ft. approx. 0 1 0		
SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.		
Med. Grey Med. Green		
24 in. × 12 in. £5 0 0 £5 2 0		
20 in. × 10 in. 5 5 0 5 10 0		
16 in. × 10 in. 4 15 0 5 1 0		
14 in. × 8 in. 4 10 0 4 15 0		
Green randoms 6 7 0		
Grey-green do. 5 9 0		
Green peggies, 12 in. to 8 in. long . 4 13 6		
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6		
DO., machine-made do., per square . 3 7 6		
Vertical Tiling, including pointing, add 18s. 0d. per square.		
FIXING lead soakers, per dozen . £0 0 10		
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square . . 0 10 0		
LABOUR only in laying slates, but including nails, per square . . 1 0 0		
See "Sundries" for Asbestos Tiling.		

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):		
7 × 3, per std. £22 0 0		
11 × 4, per std. 30 0 0		
Memel or Equal. Slightly less than foregoing.		
Flooring, P.E., 1 in., per sq. . . £1 4 6		
DO. *T. and G., 1 in., per sq.* . . 1 4 6		
Planed boards, 1 in. × 11 in., per std. 30 0 0		
Wainscot oak, per ft. sup. of 1 in. . 0 1 6		
Mahogany, Honduras, per ft. sup. of 1 in. 0 1 4		
DO. *Cuba, per ft. sup. of 1 in.* . . 0 2 6		
DO., *African, per ft. sup.* . . . 0 1 3		
Teak, per ft. sup. of 1 in. . . . 0 1 2		
DO., *ft. cube* 0 14 0		
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube . . 0 4 6		
DO. framed in floors, roofs, etc., per ft. cube 0 4 6		
DO. framed in trusses, etc., including ironwork, per ft. cube . . 0 8 6		
PITCH PINE, add 33⅓ per cent.		
FIXING only boarding in floors, roofs, etc., per sq. 0 13 6		
SARKING FELT laid, 1-ply, per yd. . 0 1 6		
DO., 3-ply, per yd. 0 1 9		
CENTERING for concrete, etc., including horsing and striking, per sq. 2 0 0		
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run . 0 0 4½		
DO. 9 in. wide and over per ft. sup. . 0 1 2		

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals 1s. 8½d. per hour;* MATE, *do. 1s. 3½d. per hour;* ERECTOR, *1s. 8½d. per hour;* FITTER, *1s. 8½d. per hour;* LABOURER, *1s. 3½d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, *1s. 9d. per hour;* MATE OR LABOURER, *1s. 4d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ⅝ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1½ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete. 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ⅝ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, *1s. 11½d. per hour;* LABOURER, *1s. 3½d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ⅛ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, *1s. 7½d. per hour.*

Glass: 4ths in crates			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ⅛ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* „	0	2	3
DO. *6 ft. sup.* „	0	2	6
DO. *20 ft. sup.* „	0	3	1
DO. *45 ft. sup.* „	0	3	3
DO. *65 ft. sup.* „	0	3	5
DO. *100 ft. sup.* „	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. ¼ *in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span 1s. 6d. to 2s. per ft.
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up | £0 | 3 | 0
Glazing only, polished plate, 6½d. to 8d. per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, *1s. 7½d. per hour;* LABOURER, *1s. 3½d. per hour;* FRENCH POLISHER, *1s. 8½d. per hour;* PAPERHANGER, *1s. 7½d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ⅛ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	3/16 in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch ..	4	3	3	5	4	3	7½	6	4½	8½	7	6
Alder ..	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	5	—	8	—	—	—	—	—

SCALE DETAILS:

A WEEKLY SERIES



THE HOWARD MEMORIAL, WELWYN GARDEN CITY, HERTS.

DESIGNED BY LOUIS DE SOISSONS

THIS Memorial to the late Sir Ebenezer Howard, who founded Welwyn Garden City in 1920, was unveiled on June 22 last by the Earl of Lytton.

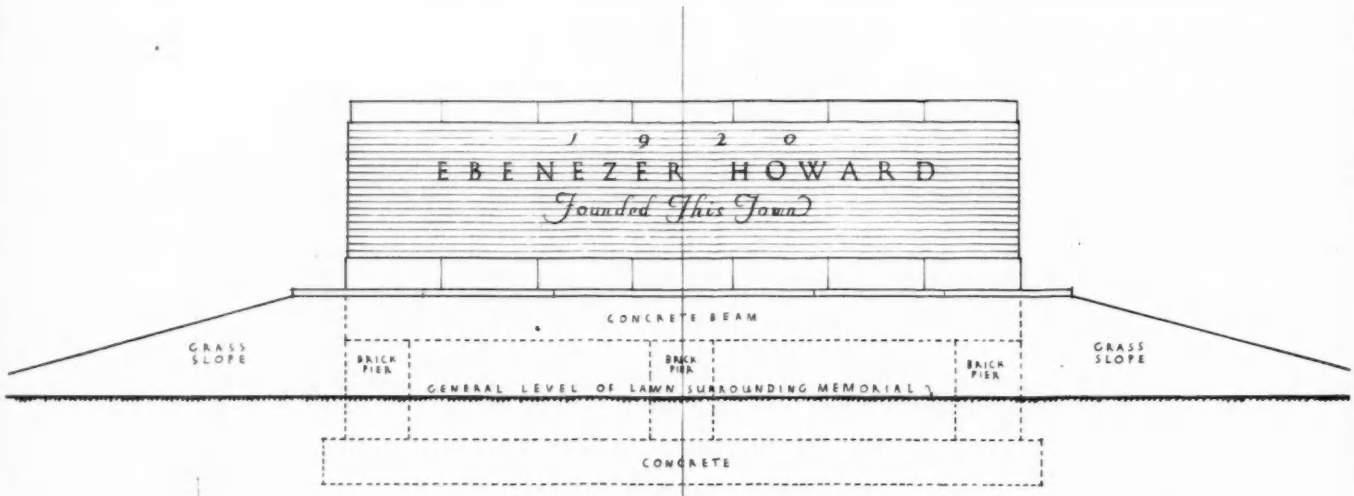
It is a plain rectangular mass of brickwork, with a capping and base of Portland stone, and is raised on a grassy slope, where it occupies a commanding position between the buildings flanking the main gardens of the town leading up from the railway station. Designed with an eye to the growth and future value of the newly-planted poplars in the composition, this work serves not only as a memorial in the usual sense, but chiefly as a reminder of the fulfilment of Sir Ebenezer's great ideal.

The inscription is formed of individual letters cut, in the studio of Mr. Eric Munday, out of $\frac{3}{16}$-in. sheet bronze, afterwards primed and covered with 22-carat English gold-leaf. There is a freshness and individuality about letters thus made which is almost impossible of achievement when stock cast letters are used.

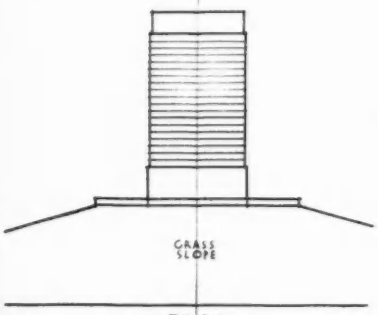
The drawings overleaf show elevations and section of the memorial to $\frac{1}{4}$-in. scale, a miniature layout plan, and part of the inscription, half full size.

The drawings may be read with architect's scales.

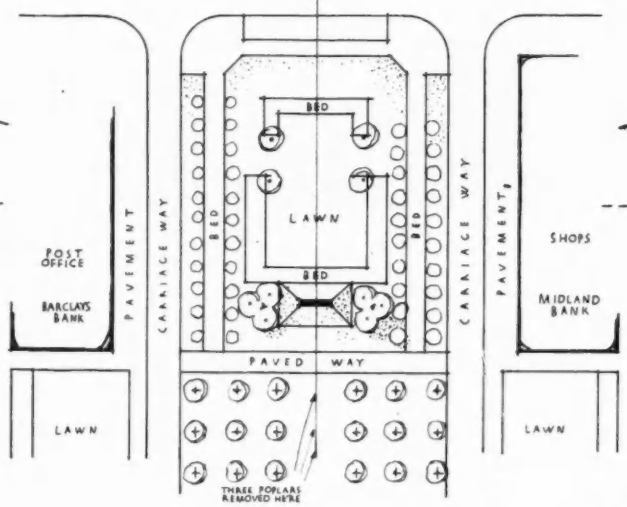
HOWARD MEMORIAL
WELWYN GARDEN CITY
LOUIS DE SOISSONS ARCHITECT



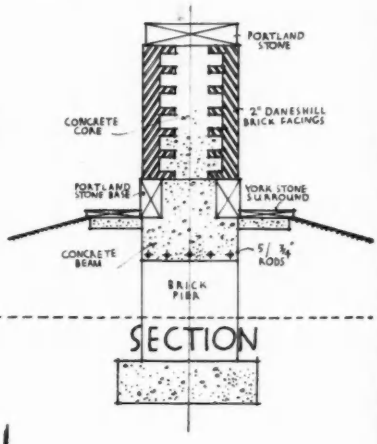
FRONT



END

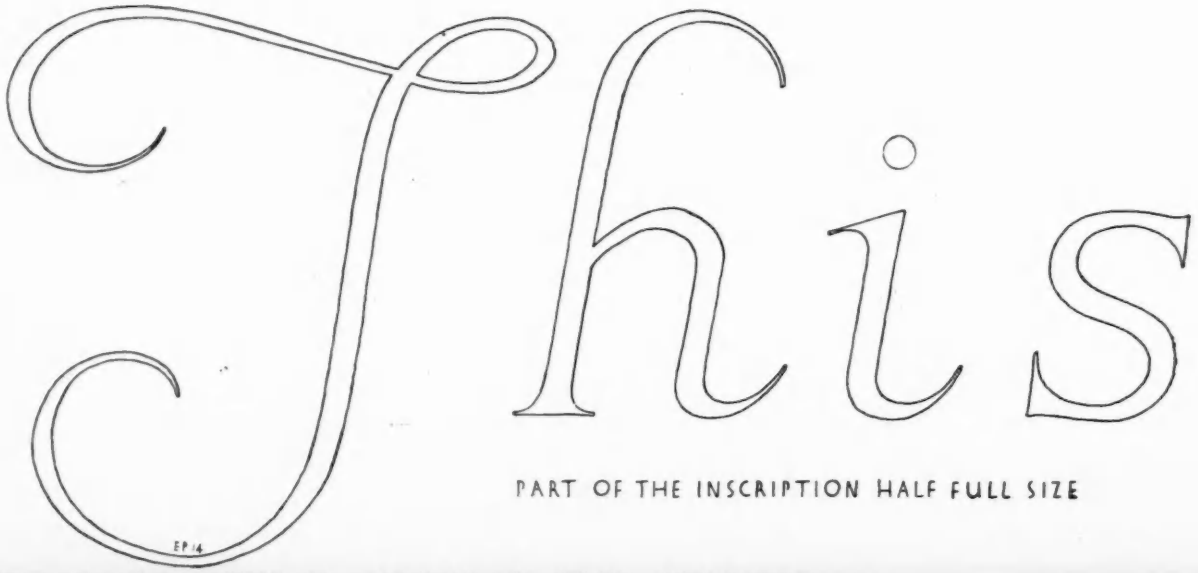


SITE PLAN
SCALE 1-1000



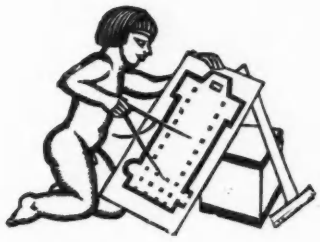
SECTION

ELEVATIONS & SECTION
SCALE FOUR FEET ONE INCH



PART OF THE INSCRIPTION HALF FULL SIZE

THE ARCHITECTS' JOURNAL



WEDNESDAY, JULY 9, 1930

FORTY-FIVE CHURCHES

"Build us churches as good as you know how, no matter what tradition lies behind us."

COINCIDENT with the completion of the work of restoring St. Paul's Cathedral comes the recognition by the English Church of the need for more churches for that Greater London that lies upon the outermost fringes of the Metropolis. Funds are being collected and a programme of building entered upon that will see the erection of forty-five or so new churches in forty-five very new suburbs.

The building of these churches, though not exactly comparable with other periods of similar activity, is one of a series of attempts on the part of the church to cope with the movements and expansions of population. The feverish church building activity that gave Wren his opportunity to stamp the City of London with a character ineradicable by later building, coincided with a marked increase in population and a new order of living. Luckily for us today, building then meant stone, and money was to be had for the work.

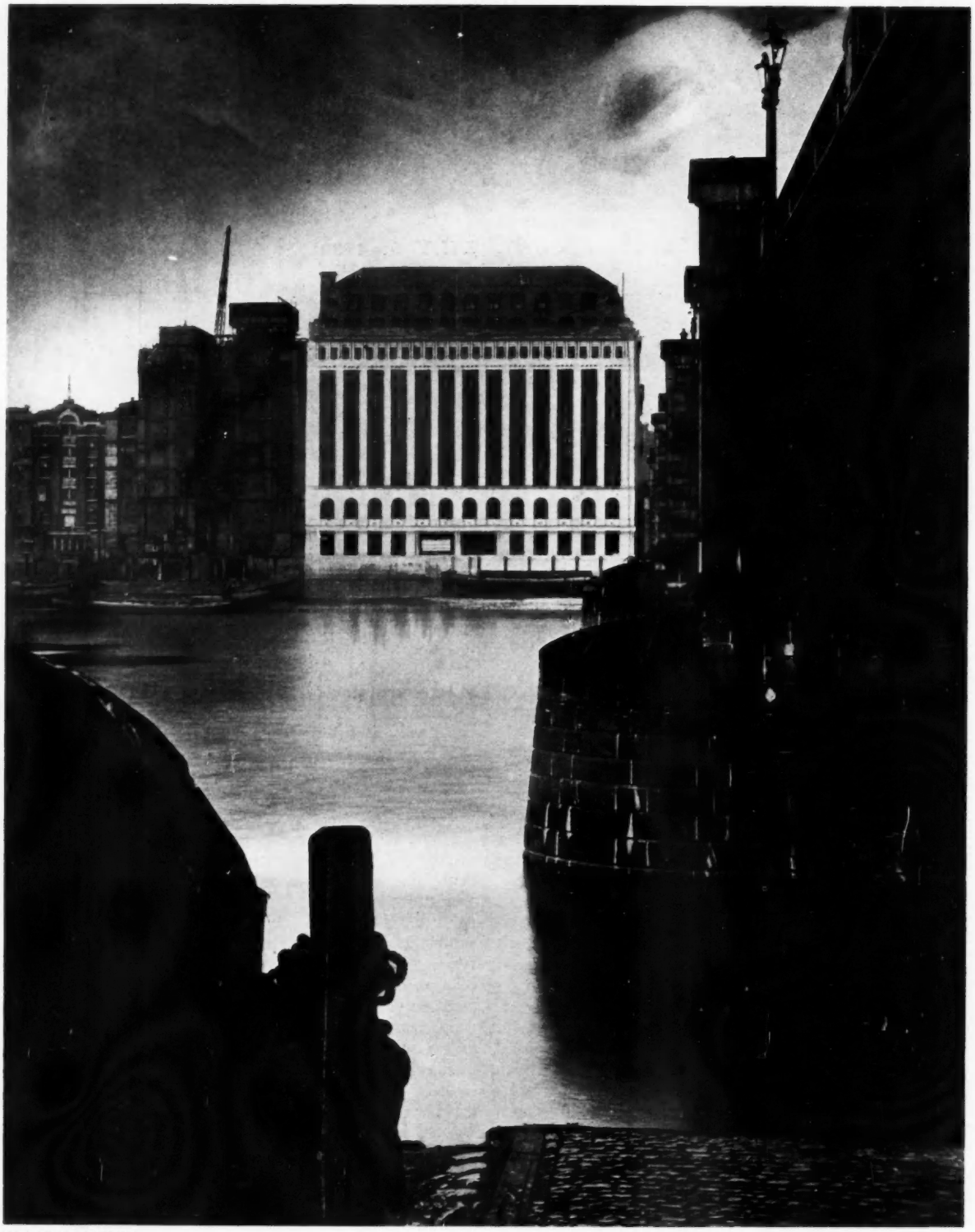
The next really serious attempt to catch up with arrears found the church the ministers to a flock so numerous, and so poorly endowed with worldly goods owing to the effects of an industrial revolution that had severed rich from poor, that the Commissioners at the time found themselves faced with two problems. The first that concerned them was a matter of style. Were the new churches to be Gothic or Classic? The second problem was lack of money. Despite the example of Wren, and in the face of a sermon-preaching age, they decided that Gothic alone was holy; and so it was left to the architects of the time to produce churches that looked like Gothic, but cost no more than meeting-houses. A number of these churches mercifully collapsed; a number exist today, thin and melancholy spectres; and one or two, by good fortune, were first-rate buildings, only marred by hasty erection in poor materials.

The point of this historical resuscitation is patent when one looks round the suburbs today and asks oneself how, and in what manner, shall new churches represent the aspirations and the great dignity of the English Church in the midst of these myriad little villas and mock cottages. Are they, like the banks, to go back to the Georgian tradition in order to weld modern methods of building with accepted architectural formulæ? Are they to evolve a church type suited to the sermon? Or are they to throw in their lot with the mock Tudor cottages and hark back to the vanished past?

After all, forty-five churches is an ambitious programme of work, and one for which there must be some mental preparation, and some preliminary manifestation of faith in a form of building that is peculiarly adapted to the needs of these congregations.

For instance, in the vast new suburbs of Liverpool, built generally in red brick and tiles, there have arisen fine churches, built also in brick and tiles, in a manner more Italian than otherwise, but with the marks of English handling and something else that may arise out of the wise elimination of useless ornament. We remember also the church that was built for the ill-fated war-town at Gretna—this another variant of the same theme. Then there are the east-end churches out of which Mr. Edward Maufe and others have created a type entirely new and eminently suited to the dual nature of a ministry that gathers society together for prayer and play. In these churches, themselves revivals in part, inasmuch as they owe their inspiration to past forms, one finds nothing of the bigoted narrowness of slavish copyism, nor yet does one feel in them a lack of the quality of devotion. Rather the reverse; for because the truest expression of religion must be framed in understandable terms, so architects, working in a style that gives them the widest scope for their powers, achieve something nearer the truth than would be possible if their hands were tied by a too stringent ecclesiology.

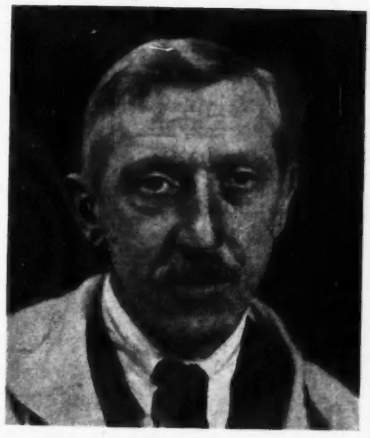
We see other countries working out their salvation in terms of their own making, and we envy the happiness of their lot. If the English Church when it sets about building will say to the architects, "Build us churches as good as you know how, no matter what tradition lies behind us," we too may be happy; and the church better served than it expected.



VINTRY HOUSE

A photographic study of the new headquarters of the Worshipful Company of Vintners, Southwark Bridge, London, taken from the south side of the Thames. The building has a frontage to the river of some 140 ft. The Portland stone elevations are fitted with metal windows. Between the stone piers on the upper part of the façades, each floor level is punctuated by a horizontal treatment of bronze panels, toned green. The bronze mullions, however, retain a golden hue. In the mansard roof, which is covered with green slates, the window frames are painted brown. Mr. A. H. Kersey was the architect.

NEWS & TOPICS



Professor Richard Garbe, A.R.A., F.R.B.S., *whose carved ivory figure "Autumn," reproduced overleaf, has been awarded the Silver Medal of the Royal Society of British Sculptors, as the best sculpture of the year. He is Professor of Sculpture at the Royal College of Art, and has three exhibits in the Tate Gallery.*

WESTMINSTER ABBEY SACRISTY ABANDONED

IN the keenly-contested matter of the Abbey Sacristy an unexpected turn has been taken, not indeed by any solution of the problem of its position, but by abandonment of the project. The anonymous donor, who in 1928 offered to provide a Sacristy, has declined to accept the plan offered in place of the original scheme. Mr. Walter Tapper made the first design; and the Dean had a full-size model erected. General criticism intervened; and the Dean referred the matter to the Royal Fine Arts Commission. A year ago they reported unfavourably; but the Dean subsequently announced that the work would proceed. Again his hand was stayed; another committee recommended the reconsideration of the Poets' Corner site. And now—*basta!*

THE L.C.C. AND CHARING CROSS

The composition of the Charing Cross Bridge Scheme Advisory Committee has now been announced. The L.C.C. is certainly to be congratulated upon its wisdom in assembling such a representative body of men to discuss the intricate problems involved. It appears that the Minister of Transport is not to be represented, because he wishes to be free to examine the report on its merits and to examine it from the financial point of view. As, however, it is well known that the Minister of Transport has worked in close association with the L.C.C. and has hitherto supported its policy over Charing Cross Bridge, his absence from the Committee and his *role* as an independent judge will in effect strengthen the position of the L.C.C. when the time comes to weigh the evidence of the Committee. Sir Percy Simmons was careful to state that the Council would not be bound by any decisions of the Advisory Committee. Yet, it is scarcely conceivable that its recommendations could be ignored *in toto*, and we may rest assured that a body presided over by Sir Leslie Scott, K.C., and including among its members Sir Reginald Blomfield, Mr. Raymond Unwin, and Mr. Longstreth Thompson (representing the R.A., the R.I.B.A., and the Town Planning Institute respectively), will produce a scheme very different from the one which Parliament rejected.

FROM SLUM TO SLUM

A serious situation is arising in relation to many of the post-war subsidized housing schemes, where, owing to the high rentals charged to tenants and purchasers, both overcrowding and under-occupation are the rule. I touched on this subject some months ago in referring to the housing schemes at Hull; and now from several other sources the same story is told again. A letter to the editor, published last week, sets forth a typical case at Slough with admirable clarity. Whether it be, as some suggest, that the zoning of houses at twelve to the acre adds too much to the capital cost, or whether it be merely the high cost of building combined with the high rate of loan interest, or all three, it is becoming obvious that an increasing mass of the population cannot afford to pay the rents or instalments asked for the typical Council house, and they are therefore driven to making little slums of their houses by filling them with sub-tenants or else they move out of the housing schemes back into the real slums.

*

It is very depressing, and it is a very urgent matter, that this large section of the population, earning under £3 a week, should be housed economically. If the State is unable to bear the burden of making up their losses, then architects and builders *must* learn how to build them houses for less money : in blocks if necessary, in terraces and long formations even. It can be done, and if we don't do it, it will be done so badly that one shudders to think of the future.

PUZZLE : FIND THE HORSE

In Roy Campbell's *Adamastor*, published the other day by Faber and Faber (writes Mr. W. S. Purchon), I came across the following verse which seems to me to apply not only to certain recent literary efforts, but also to be of some interest to your readers in an extended application to architectural activities :

On some South African Novelists

You praise the firm restraint with which they write—
I'm with you there, of course :
They use the snaffle and the curb all right,
But where's the —— horse?

I hope to make some observations on architectural criticism next week.

THE BLACK CURSE

Whilst the worker in this enlightened age labours under conditions rendered as hygienic as possible by the expenditure of vast sums of money, not only on adequate heating and lighting but on dental, surgical and welfare work generally, too often his home life is spent under the dreariest of conditions, due to the grime and gloom diffused by the chimneys of the self-same factories in which he spends his working hours, and without the ameliorations that money can bring. Sir Francis Goodenough, in his presidential address to the Royal Sanitary Congress at Margate last week, laid particular stress on the damage done to the health and happiness of workers in our towns and cities through coal smoke cutting off a large percentage of sunshine. He spoke of the vital importance of rousing public opinion to the foolishness of burning crude coal wherever gas, electricity or coke could be used—and there are few circumstances in which one or other of these alternatives cannot economically displace it. We now have efficient drains, pure water and clean milk, but the time has not yet arrived when we can boast of untainted air.

*

An instance of the proneness of the general public to sacrifice hygienic considerations in its inability to recognize vitamin D in terms of £ s. d. was stressed in the same address. The flue as a means of ventilation is not given

the important consideration it should have, and a danger which is arising as an outcome of the problem of hygienic heating is the growing tendency of builders to erect houses with flueless bedrooms. This is done on the assumption that electric fires only will be used, and in the belief that flues are not then necessary. In point of fact, in a large proportion of cases electricity is found to be too expensive for general use; a cheap oil stove or flueless gas stove is installed, and the result is a state of affairs utterly unhygienic at the best, and at the worst fraught with positive danger to life. Here is a matter in which public opinion needs education.

DWARFING ST. PAUL'S

After celebrating the restoration of St. Paul's dome with such very great pomp, it will be a deplorable anti-climax if we do not take advantage of the renewed pride in the great Cathedral to save it from further danger. There is one obvious circumstance which from time to time has already given cause for apprehension, namely, the rebuilding of the structures aligning upon St. Paul's Churchyard. The leases of these are gradually falling in, and we may confidently expect that the existing buildings will be replaced by others very much taller. But the cutting of deep foundations for these latter will undoubtedly disturb the soil surrounding the Cathedral and render its fabric less secure.

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And besides this question of structural engineering there is an æsthetic consideration—one which we cannot ignore. The present balance of scale between the Cathedral and its neighbours will be entirely upset if tall commercial buildings are to be allowed to rear their heads so near to it. The time-honoured predominance of the Cathedral will cease and there will be an unpleasant conflict of architectural claims. Is it too late to suggest that the L.C.C. should pass a special building regulation forbidding the erection of taller structures around St. Paul's Churchyard? Even if it were necessary to compensate building owners for any sacrifices which the enforcement of such a policy would entail, the Metropolis is surely rich enough to bear this expense.

" SOUVENIR, SIR? YESSIR ! "

The pinching of souvenirs is a queer habit. It is human, I suppose, and as deeply embedded in the personal complex as that other habit of leaving initials on the tops of towers and in the nameless depths. But who would think that bits of the Burlington Arcade would comfort anybody—even Americans? I would as soon have a lump of asphalt from Victoria Street as a piece of the porter's lodge from Piccadilly. The demand is met, of course. Shopkeepers in the Arcade keep a stock of Regency fragments to hand to visitors craving for mementoes, and they go happily away. If it were not that age is a necessary constituent in the composition of a souvenir, architects might leave a stock of wedges and moulding ends as a protection for their joinery.



"Autumn," the ivory carving for which Professor Garbe has been awarded the silver medal of the R.S.B.S.

GAS-MASKS FOR BEETLES

Peace finds uses for some of the worst horrors of war. A church in Austria, riddled by the death watch beetle, was thoroughly doused with poison gas as a means of curing the disease. All openings were sealed up, the place was filled with gas, and left so for a week. It is not yet recorded whether the gas penetrated as far as the fastnesses of the beetles' lairs, but I have a mental picture of antiquaries and such people pacing their studies restlessly, waiting for the telegram that brings the glad tidings of complete victory over the death watch—and another, of Dame Nature, implacable as ever in the face of outrage, instigating measures for the protection of the beetle legion. Unless they can be annihilated at one stroke, who knows but what the insect of a century—or two, or five—hence may be hatched with a natural gas-mask?

DOING THE WRONG THING

The ordinary man must sometimes think us very odd. For years we have been telling him to look after his old buildings, not to destroy wantonly, to respect the past. When, in excess of zeal, the worthy publican strips the plaster from a fine old gable and leaves its beams showing glaringly black against white, like a pair of braces against an evening shirt, he gets the shock of his life when we tell him that he has done the wrong thing. " Oh," says he, " I've made it just like it was in the old days of half-timbering. Real genuine beams, those are ! "

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It's hard to explain what one means by " surface," and how seldom black and white was to be met with in the past; and so, discouraging. But it must be done; knowledge must be acquired even if it hurts, and I know many workmen who would understand at once what we mean. But they are usually silent fellows, and not given to advising their mates.

" HOARDINGS " IN THE SKY

Under the above title *The Morning Post* of the 4th instant announced the newest form of advertisement, which has the appearance of a hoarding 120 ft. long and is towed by aeroplane across the firmament. It seems that an " ad." covering 2,000 sq. ft. can be exhibited in any " flying weather." On the same day I read in a letter published in *The Architectural Review* that advertising magnates habitually read Richard Jefferies and W. H. Hudson; no doubt it was these authors who drew their attention to the wasted fields for advertisements aloft. They should also read Wordsworth, who remarked " My heart leaps up when I behold a rainbow in the sky " (how much more a cup of Oxo), and they should study Shelley's " Cloud," which is full of good ideas for days when visibility is but moderate.

ASTRAGAL



The site on which the Streatham Astoria is erected is on Streatham High Road. The front and side elevations are treated in stone and multi-coloured bricks, and the roof is covered with tiles. The wood shutters to the top story windows are painted green.

THE LATEST ASTORIA: STREATHAM

DESIGNED BY E. A. STONE

THE Streatham Astoria, the most recently completed of the large cinema theatres which are being provided in the outlying districts of London, was formally opened last week by the Mayor of Wandsworth.

In the auditorium the predominant colour is pure vermilion, all mouldings and embellishments being black and gold. There are two ceilings, one above the other. The lower ceiling is formed of perforated grilles in panels, and is hung about two feet from the main ceiling, which is plain and light in colour, in order to reflect concealed lighting through the grilles below. The ceilings are supported between two arches, one at the proscenium end and the other at the back of the theatre over part of the balcony. The remainder of the balcony has a flat stepped ceiling covered with narrow reeding.

The flank walls of the balcony are divided into three bays by pilasters, the caps of which form glass and metal light fitments. Filling the whole of these bays are two large mural decorations in highly-coloured relief: one represents a hunting scene with horses and chariots and lions, and the other a river scene with boats, the backgrounds being modernized Egyptian landscapes.

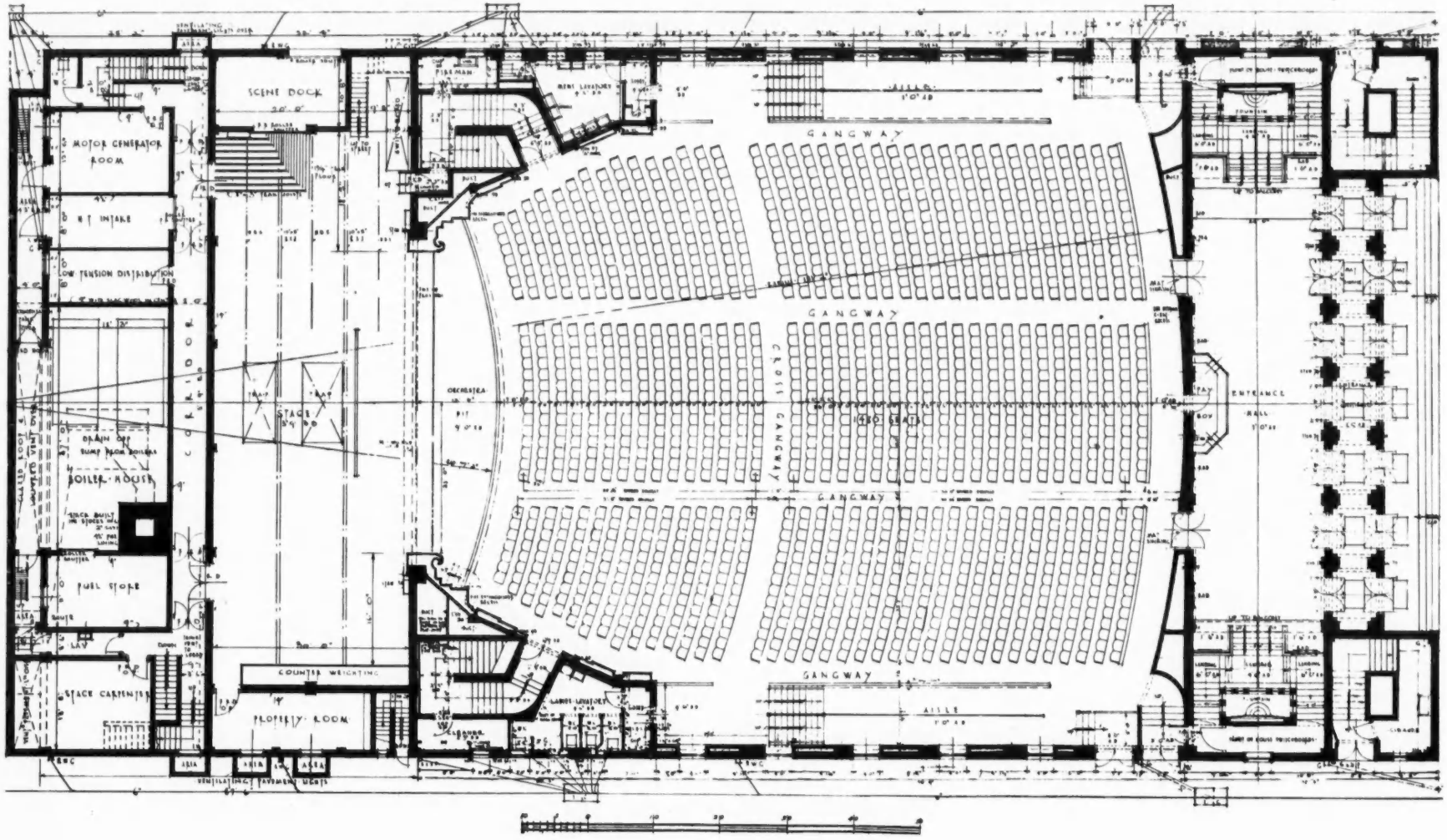
Flanking the proscenium are two arched recesses over the exit doors from the stalls, the tops filled with modelled lunettes and a stepped glass light fitted on a curved and fluted base below. Tableau curtains are of gold trimmed with bright aluminium plates. The seating is green on a carpet of golden brown, cream and black, in a repeat pattern of fan-shaped lotus flowers.

Some 8,000 lamps are employed to provide the colour and effect lighting for the stage and auditorium. The whole of the stage section is equipped with automatic sprinklers, and the safety curtain installed is said to be the largest and most formidable piece of machinery in any theatre in Great Britain. In the event of a fire on the stage, at the same time as the safety curtain descends a switch is operated which reverses the circulation of air and draws any smoke in the auditorium away from the audience towards an extract in the ceiling.

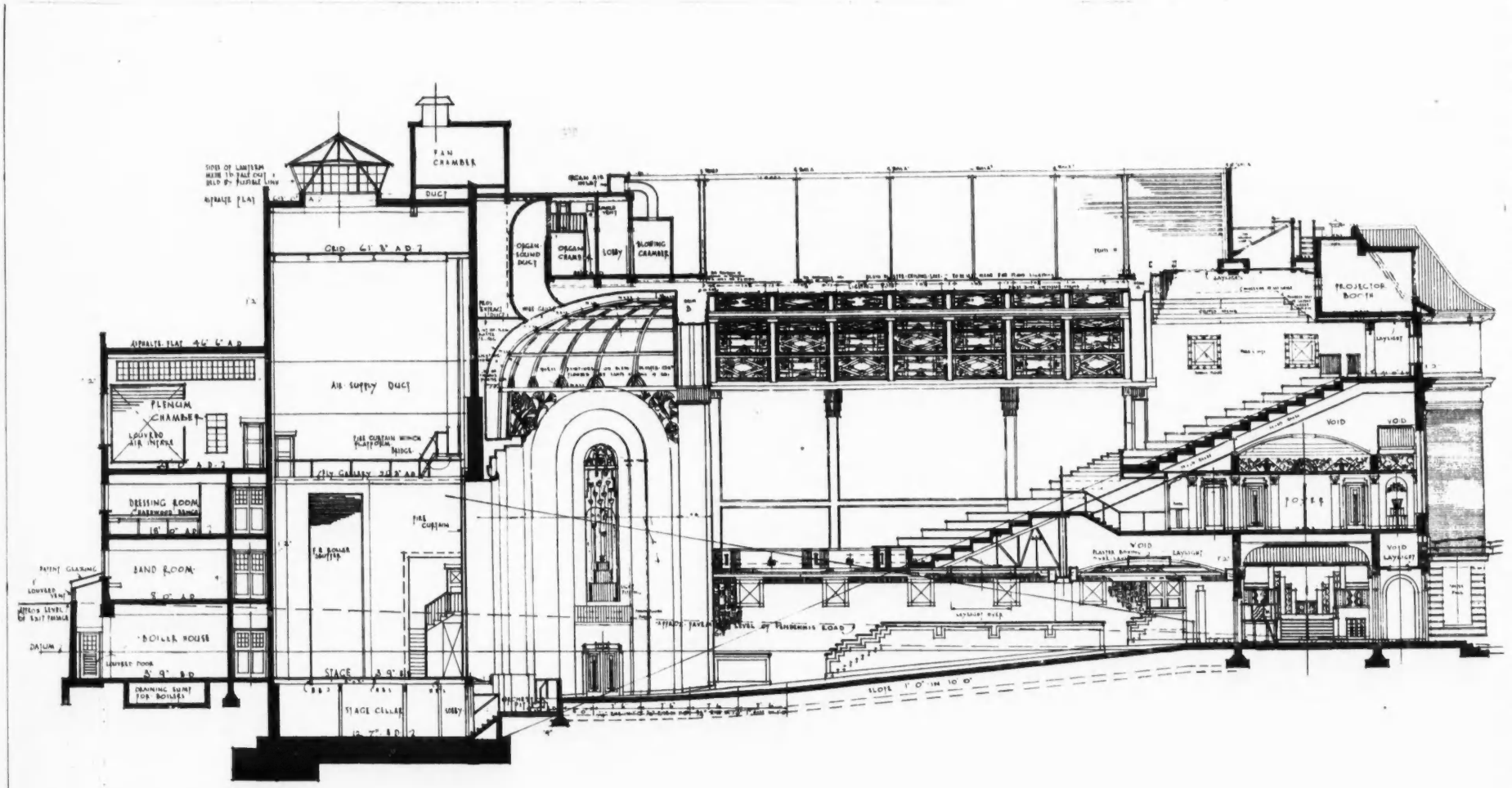
Staircases lead to the foyer through openings in the shorter walls at both ends of the entrance hall. On the half-landings are lighted and glazed fountains, enclosed by metal grilles set between square pillars of silver mosaic, with responds, of the same design and material, forming the dado of the walls opposite. The metal work of the balusters and the radiator grilles is finished in silver.

The ladies' rest-room is unique. It has a triple-coved cornice and glass box lighting at frieze level.

The settee is specially designed with floodlights in the back to fit under a coloured relief mural decoration of an Egyptian female figure bathing amidst lotus flowers. The lower part of the panel is covered with grooved glass, to represent water, fixed into a chromium plated metal frame. The walls are stone colour, and the dressing-tables, with metal legs in the form of leaves, have lighted glass tops.



Ground-floor plan. Seating accommodation is provided for 1,480 in the stalls and 1,094 in the balcony, a total of 2,574. A perfect view of the stage and screen is obtained from every seat, while the acoustic properties are such that a stage turn or "talkie" is clearly audible from every part of the vast area covered by the stalls and balcony. Ample exits are provided, and the whole theatre is rendered fire-resisting in accordance with the regulations of the London County Council. The house contains its own complete power unit, beyond the stage.



The Streatham Astoria.] [*By E. A. Stone.*

Longitudinal section. A fully-equipped stage is provided, complete with counterweighted scenery. Beyond the stage are a large number of well-lighted and equipped dressing-rooms for the use of artistes. Air which has been washed, dried and warmed, is forced into all parts of the theatre at ceiling level, and is finally extracted from under the seats. This circulation is in progress continually whilst the building is occupied. Particular care has been taken to ensure that no draughts are produced. The auditorium has a false ceiling.



The entrance hall has a coved and fluted silver cornice, resting on grooved pilasters, with black, green, and silver modernized caps. Wall surfaces are pale biscuit, streaked vertically with green and silver, in plastic paint texture.



The foyer has a semi-vaulted ceiling and an open plaster frieze supported by square piers with lotus caps. Walls are dull red. The frieze, in bright green, gold and black, is flooded by concealed lighting.

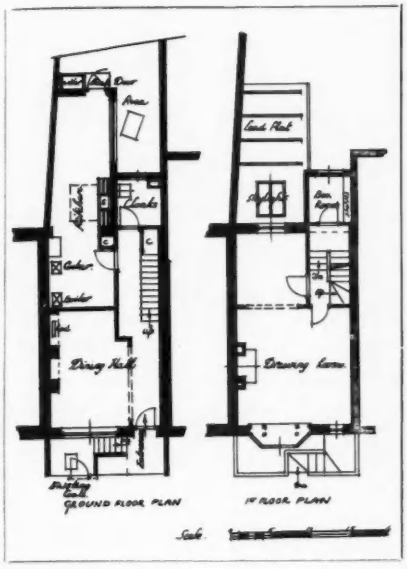


The Streatham Astoria.] [*By E. A. Stone.*

The proscenium opening is framed by a broad coved architrave fitted for concealed lighting, and is surmounted by an open red, black and gold treillage in the form of a semi-dome. The close wire mesh of the organ grille is masked by a painting in keeping with the mural panels on the balcony walls.

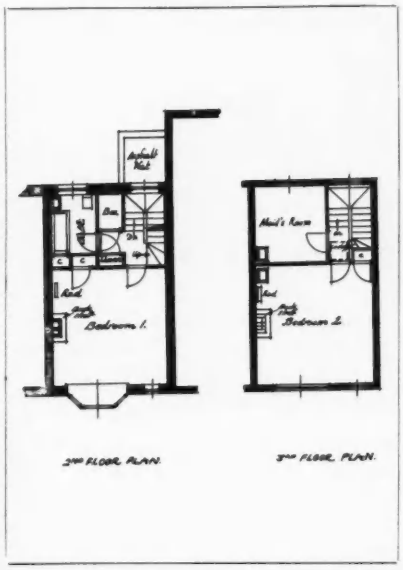
A SMALL HOUSE IN BROMPTON, S.W.

DESIGNED BY ALCOT BATHER



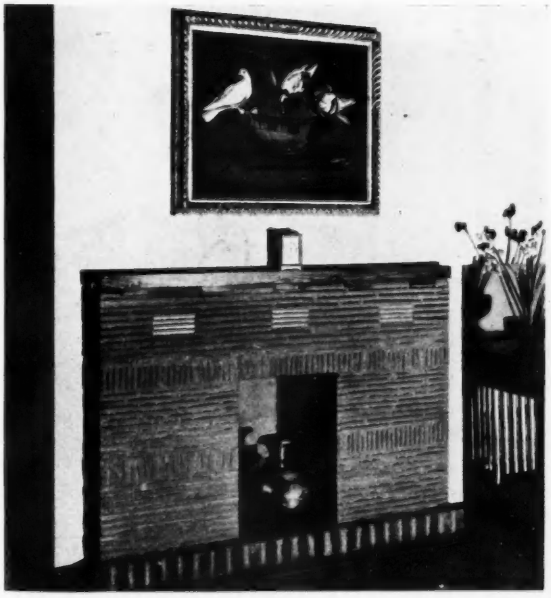


The elevation of No. 25 Montpelier Row. The site was a very narrow one, the front measuring only one-third of the depth.



THIS house is situated in a quiet, though popular, street in the west end of London. The elevation is finished with rough cast. A coping of pantiles and the projecting bay windows to the first and second floors, the former emphasized by a plaster fan, serve to give character and individuality to a limited frontage. A low parapet wall in patterned brickwork screens the entrance from the pavement, and the front door is treated with a grass-green paint, stippled on an ivory-white background. Metal casements and leaded lights are used throughout.

Internally, the joinery work is treated with Solignum and wax-polished, paintwork being entirely eliminated, with the exception of the bathroom and kitchen. The living-rooms have parquet floors, and the treatment of the fireplaces in sand-faced tiles and with brick hearths has received special consideration. All bedrooms have fixed lavatory basins.





The fireplace in the dining hall; and a corner of the drawing-room, showing the oriel window and fireplace. The internal decoration of the house generally is in a soft shade of buff, except in the drawing-room, which is finished with dove-grey distemper.

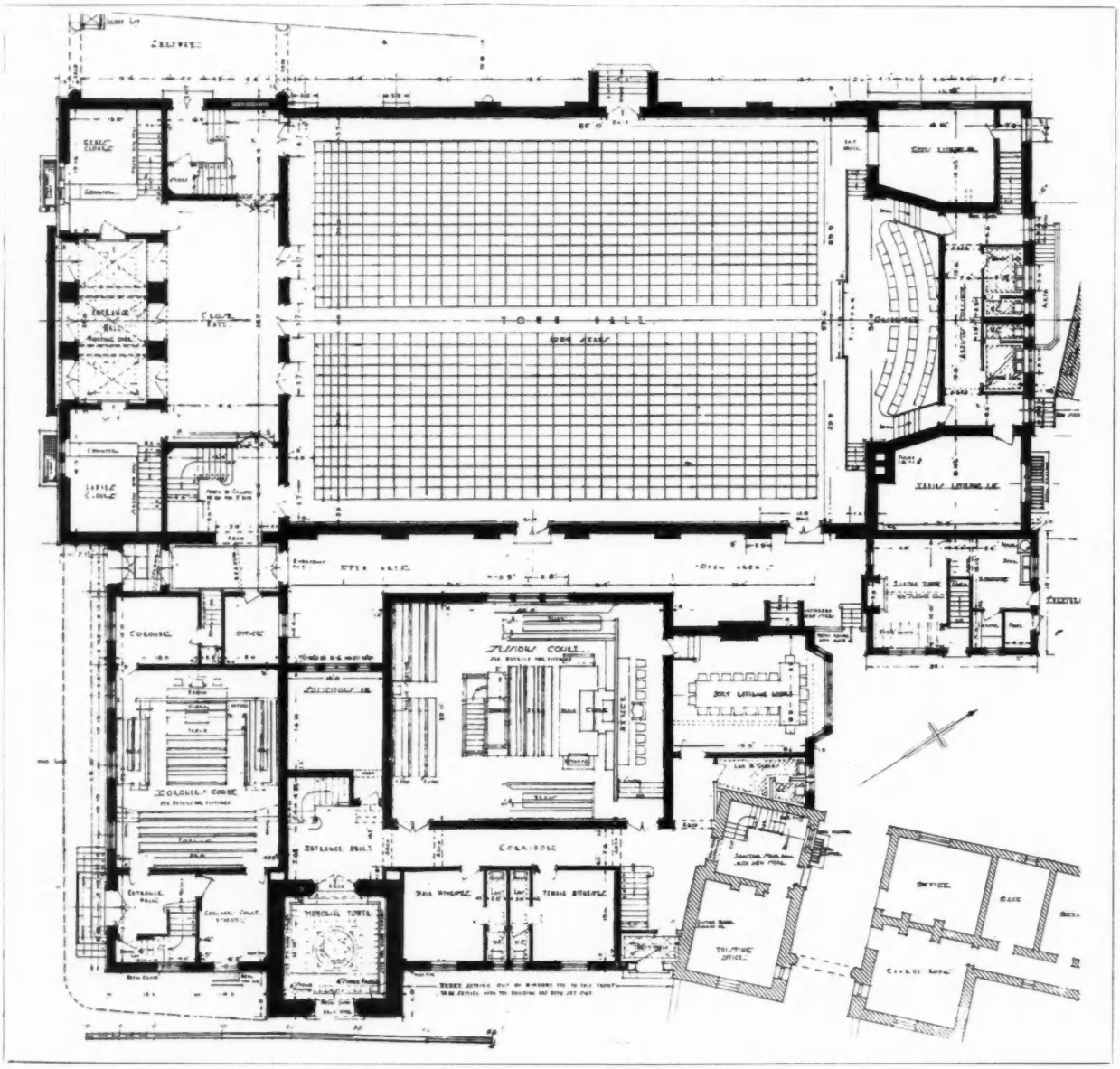
PUBLIC BUILDINGS, DUDLEY, STAFFORDSHIRE : ERECTED FROM DESIGNS SUBMITTED IN COMPETITION BY HARVEY AND WICKS

THE designs of Messrs. Harvey and Wicks for the new public buildings and war memorial at Dudley were awarded the first premium in an open competition, promoted by the Corporation and assessed by Mr. W. Curtis Green, A.R.A. There were fifty-five competitors.

The most striking feature of the buildings when approached from Stone Street is the war memorial, which takes the form of a clock tower. Inside is a memorial chamber, over the entrance to which, cut in the stone, are the following lines, written specially for the memorial by the late Thomas Hardy, O.M. :

> If you think, have a kindly thought,
> If you speak, speak generously
> Of those who as heroes fought
> And died to keep you free.

Above, in the tympanum of the window, is a carved and decorated



Ground-floor plan. The public buildings occupy a site at the corner of Priory Street and St. James Road, extending from the old police buildings to the public library. The accommodation includes a town hall and offices, war memorial, sessions court, grand-jury room, and coroner's court. Buildings previously existing are shown hatched ; new work, in black.

panel with the figures of St. George and the Dragon. The memorial chamber is built in stone and has a simple ribbed stone-vaulted roof, springing from stone corbels in the four corners, carved in the form of the national emblems—rose, thistle, shamrock and daffodil. The keystone of the roof is carved and pierced, and contains the lamp to be lit and kept always burning as a symbol of the great sacrifice of the 1,000 men of Dudley whose names are carved on the walls of the chamber.

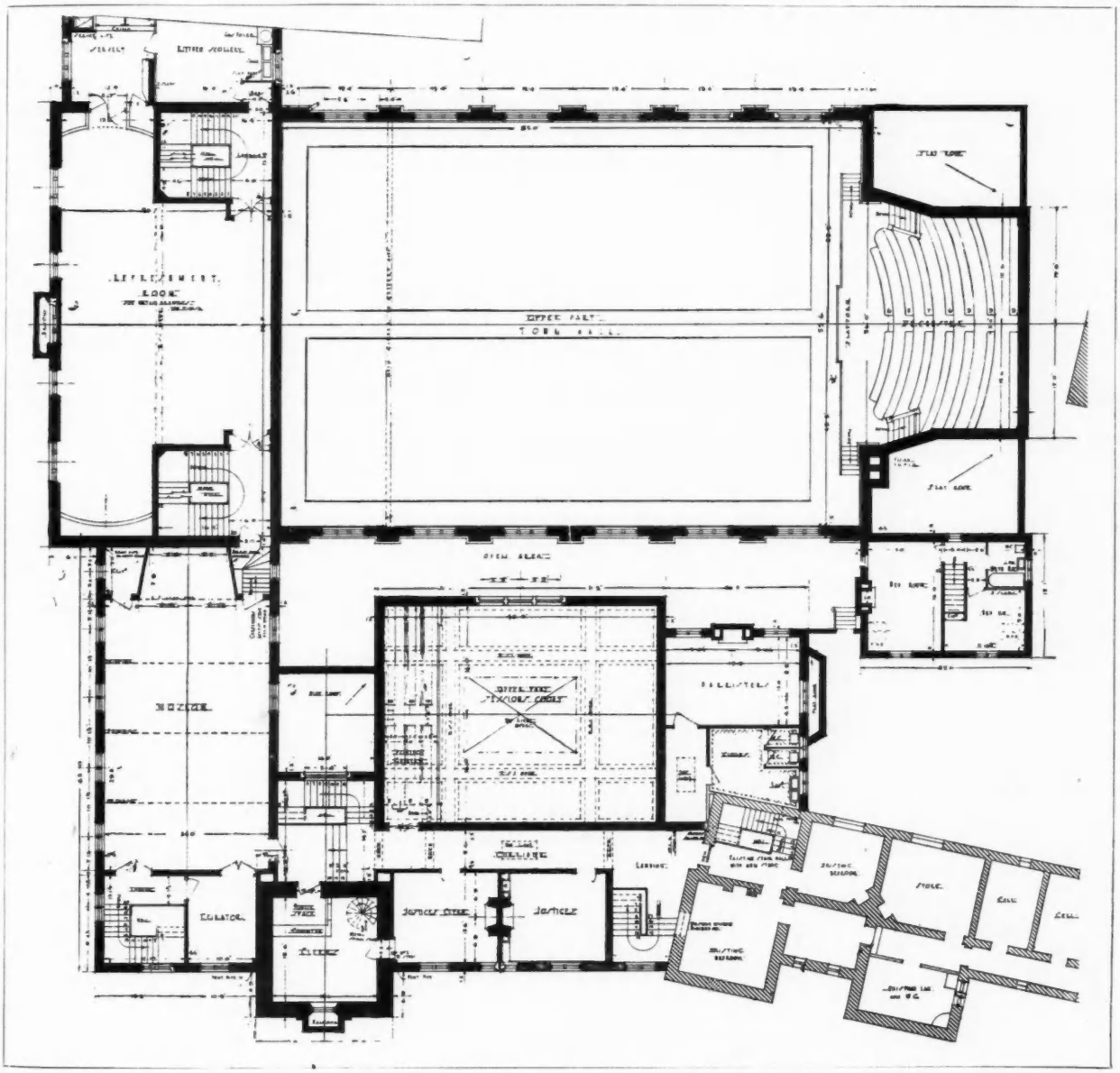
The frontage to St. James Road is occupied by the town hall buildings, coroner's court, and Brooke Robinson museum. The central window of the refreshment room is carved and decorated with the Dudley arms, and has a balcony in which is cut in stone the following inscription :

> This building was erected and the works of art in this building were placed herein under the provisions of the Will and Codicil of Brooke Robinson, Esquire, for many years M.P. of this Borough, of which he was a native, in memory of his wife, Eugenia Frederica Louisa, and her father, George Richmond Collis, Esquire.

The town hall accommodates 1,500 people. It has a spacious platform and orchestra recessed behind a proscenium arch, and a large gallery at the other end.

The hall is decorated with modelled plasterwork, which will lend itself to rich colour. The ceiling is segmental in shape and the walls are panelled to a height of 6 feet in oak, and pierced above with tall stone mullioned windows.

The principal artificial light is from projectors concealed in boxes at the foot of the windows. These projectors throw the light on to the ceiling, from which it is reflected with a soft and even distribution. Glare and the distraction of hanging fittings are avoided.

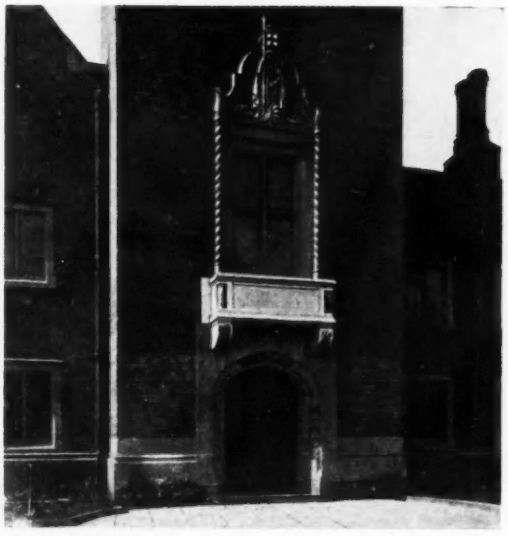


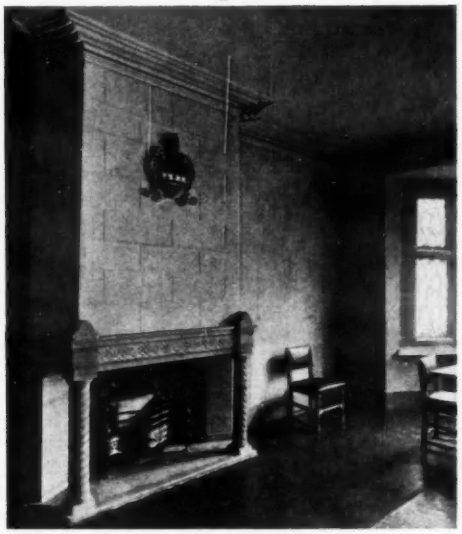
On the first floor are the museum and refreshment room, and the upper parts of the town hall and sessions court, both of which are two floors high. In the museum is the collection of the late Brooke Robinson, for some time a Member of Parliament for the borough, under whose will the building has been erected as a memorial to his wife, and her father.

C



The buildings have been specially designed with a Tudor influence to harmonize with the old public buildings. The battlemented tower on the right is part of the old police buildings. An important feature is the clock tower, which forms the war memorial of the borough.



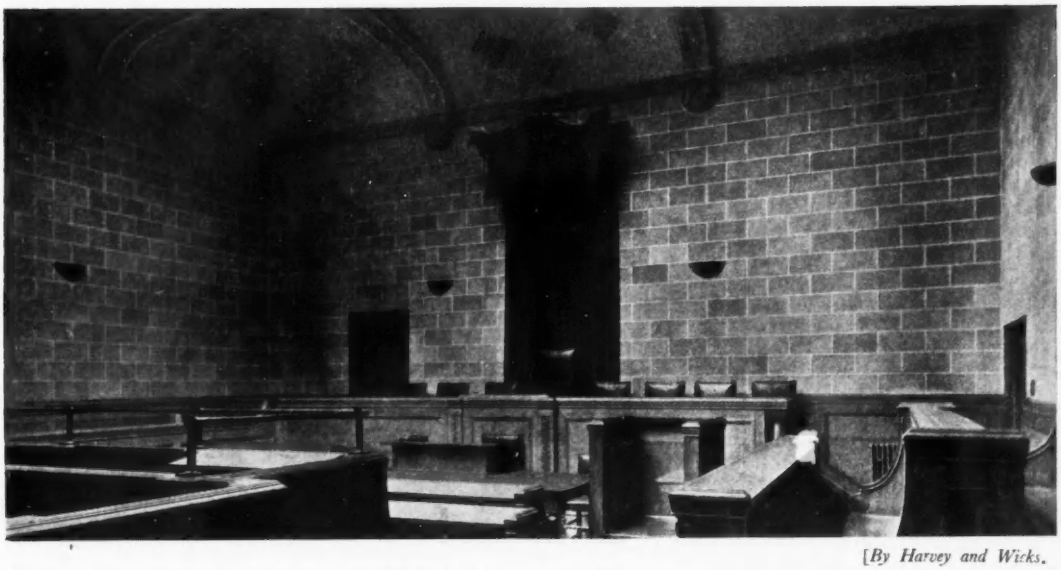


Public Buildings, Dudley.]

The balcony at the base of the war memorial tower ; and the fireplace in the grand-jury room. As will be seen from the general view, the only enrichments on the tower are the entrance and windows, of carved stone, and the brilliantly-painted clock dials.



The town hall is entered from St. James Road through recessed and carved archways having wrought-iron gates. Over the archways are tall stone-mullioned windows lighting the refreshment room. The central window is richly carved, and decorated with the borough arms of Dudley.



[*By Harvey and Wicks.*

The sessions court is panelled and entirely furnished in oak, and contains a gallery across one end for the use of the public. In close proximity to the court are the grand-jury room and the apartments of the magistrates, barristers, solicitors and witnesses.

Settling-Up Honeywood : vii

THE LITTLE BILL OF EXTRAS

BY KARSHISH

(H. B. CRESWELL)

Sir Leslie Brash, the client, is concerned for "the purity of our sanitary provisions," but Spinlove, the architect, and Grigblay, the builder, consider that nothing is wrong. Certain minor defects have been complained of, but the only serious matter is the failure of the inside paint-work, for which, however, both Spinlove and Grigblay disclaim responsibility. There have been indications of a heavy bill for extras, but no exact particulars have yet been forthcoming although the architect has repeatedly asked for them.

GRIGBLAY TO SPINLOVE (PERSONAL)

Sir, 24/5/26.

I happened along Honeywood way and looked in, as Jossling is clearing up after finishing road which I hope is to your approval, and I just write to drop you a hint that the old gentleman is still worrying over his defective drains, as I gather you have nothing to do with a sanitary expert he has called in. There was a very young gentleman, with two handy-men to help him, had been putting the water test on the vertical soil and filling the pans to the brims, and so on up to the second floor servants', like a piano-tuner at work, till he had near 30 foot head of water above the first man-hole—so Jossling told me—and enough to burst the pipes. I found him down at the disconnecting chamber with a parcel of rockets and boxes of matches to find out with smoke how much damage he had done with water.

The drains don't ventilate Mr. Grigblay he says, I've put three rockets in and been waiting half an hour and I can't see any smoke out at top yet. You're in too great a hurry I told him; you keep at it another hour or two with all the rockets you've got there, and you'll see a bit of smoke right enough. This sucking expert had wetted all the pipes right up, and made them stone cold, and then expected to find a nice draught! However, a fashionable gentleman drove up in a saloon and rang the front bell; Jarrad, of Quince and Jarrad, patronized by Royalty—I've seen something of their doings before now. Jarrad didn't get asked in to tea, it seems, for he soon came round to find out how his young hopeful's drain-bursting experiments were getting on; and then they brought a pressure pump and other gear from the saloon and so I left him to go running his nose round the joints like a terrier dog, and rub the skin off same as he does at his Royal Palace to try and catch a whiff of smoke after he's pumped up the ten pounds or whatever the pressure is they keep on their mercury gauges and contraptions. I hope no harm will come Sir, but his kind are very mischievous fellows that get their living finding fault with other people's work, and the more faults they find the bigger men they hold themselves out to be. I thought best to let you know what was going forward, and if you hear any complaints perhaps our good friend Mr. Potch will have a kind word or two to say to Mr. Jarrad or to anyone else who claims he knows better ways of finding fault with other people's drains than what Potch does.

Apologizing for troubling you but thought you better know what is afoot.

Yours truly,

Brash, as we have noticed, commonly does not know the right thing to do; or, when he knows, frequently does not do it. He ought to have told Spinlove he wanted the drains tested by an independent authority, and either left Spinlove to nominate someone or directed him to employ Quince and Jarrad. To go to the firm behind his architect's back is, if not a definitely hostile step, a sharp reminder to Spinlove that he has lost his employer's confidence. Brash's insensitiveness, however, probably exonerates him from any intention of wronging Spinlove; and Spinlove has invited this treatment by his unaccommodating attitude and his impatience at the suggestion that all is not as it should be. Grigblay's apprehensions are justified, though his contempt for Messrs. Quince and Jarrad is not at all likely to be. Mr. Potch is the District Surveyor who brought Spinlove much trouble while the house was being built.

SPINLOVE TO GRIGBLAY (PERSONAL)

Dear Mr. Grigblay, 26/5/26.

Yes, you are correct — I have heard nothing of any drain testing; but as I am sure everything is right no amount of testing can find anything wrong.

I am obliged to you for writing.

Yours truly,

Spinlove is in a fool's paradise indeed, if he can welcome the approach of the sworn tormenter of drains—for to that dire body I divine Quince and Jarrad to belong.

(Continued on page 54)

GRIGBLAY TO SPINLOVE (ENCLOSURE TO LETTER OF 29/5/26 : SEE PAGE 54)

INTERIM SUMMARY OF VARIATIONS

(I have numbered the items and added in italics the thoughts likely to be awakened in Spinlove.)

	AMOUNT OF CONTRACT £18,440 0 0	
1.	Alterations to kitchen .. .. say	400 0 0
	("My goodness! It cannot possibly amount to as much as that! I told Brash 'about £100'—but that was before I had made the working drawings. Tinge must measure carefully. Damn!")	
2.	Piping ditch (Day-work account)	114 5 6
	("Damn! I told Brash £20. They must have included other work on the time-sheets. I ought to have insisted on the day-work vouchers being sent in regularly. Tinge must check carefully.")	
3.	Pulling down and altering partitions and restoring. (Day-work)	137 9 0
	("Pity it is not more. Serves B. right for letting Lady B. interfere.")	
4.	Extension and alteration of drains (Day-work)	84 17 6
	("That must be the fish-tank extension. No business of mine, thank goodness!")	
5.	Extra price picked facings (Hoochkoft)	92 0 0
	("What the . . .! Why, they agreed to send picked after I refused to allow extra! No go, my friends!")	
6.	Cutting out defective and making good (Day-work)	8 14 0
	("Hoochkoft and Grigblay can settle that between them. I told H. I would not have the soft underburnt bricks, and G. that he was not to use them.")	
7.	Raking and pointing to order in lieu of plain struck joint (Day-work)	49 6 3
	("Frost got at the joints. That's all right—Act of God. Tinge had better fix rate and measure. No justification for day-work—besides, how could they separate the time when the joint was struck as the bricks were laid?")	
8.	705 yds. sup. pointing to order in lieu of plain struck joint at	

8.	795 yds. sup. pointing to order in lieu of plain struck joint at 4½d. per ft.		134	3 0
	("Oh, I see! So the last item was for raking and pointing joints damaged. Oh! Right!—but Tinge must check the measure and rate.")			
9.	Work in draining cellar (Day-work)		84	17 9
	("Oh, Lor! Twice what I expected! All that tunnelling through walls, I suppose! Wish I had checked day-work vouchers at the time.")			
10.	Extra foundations to order (Day-work)		66	3 9
	("What's this? 'To order'? Not mine. There was a little give and take, certainly. Tinge would have measured the whole if there had been talk of any extra. No go, my lad!")			
11.	Timber garage outhouse (as estimated)		372	10 0
	("Very cheap too, and a clinking design, I will say. Old B. very pleased. A decent old boy.")			
12.	Extension of washing place (Day-work)		54	9 0
	("Why couldn't B. take my advice and include it with the building? He was sure to want it. Would have saved him money. Must be measured, anyhow. Day-work is all nonsense.")			
13.	Terrace steps (special charge as notified)		11	6 3
	("Don't know anything of this. Lady B. perhaps.")			
14.	Alterations to back stairs to order (Day-work)		41	12 0
	("That mistake of mine! They've charged far too much. Must question it.")			
15.	Alteration to ground-floor window heads (Day-work)		65	10 0
	("I won't allow it. It was Grigblay's mistake, not mine. Anyhow I never sanctioned an extra.")			
16.	Repairs and new bottoming to Entrance Road (as estimate)		62	0 0
	("A low charge. Wish I had got estimates for everything; but how the deuce can one, with all the interferences and hurry?")			
17.	Renewing two broken catch pits (Day-work)		4	13 0
	("They ought to have included for these when they estimated for the road repair. Out it goes!")			
18.	Oak floor to kitchen passage (To order)		14	12 0
	("Lady B. I forgot this. They never had order for extra.")			
19.	Waterproofing chimneys (estimate)		42	10 0
	("Not done yet.")			
20.	Various minor works and attendances		192	6 8
	("Ridiculous! I must have particulars. They must show the orders for all extras.")			
			2,033	5 8

EXTRAS ON PROVISIONS

("Expected this. Not altogether my fault.")

21.	Grates and range (Chiddle, etc.)		22	0 0
22.	Electric wiring (Poggle)		21	5 0
	("I couldn't know they would want so many points.")			
23.	Electric light fittings		48	4 6
	("Well, I told Brash what was allowed.")			
24.	Sanitary fittings (Wide)		53	17 0
	("He did it with his eyes open.")			
25.	Radiators (additions and alterations)		28	0 0
26.	Locks and furniture		32	4 9
	("I cut this too fine.")			
27.	Casements and glazing (Watkins)		13	10 6
28.	Special opening gear (do.)		27	7 0
	("This was absolutely necessary.")			
29.	Extra journey money *re* (do.)		11	13 3
	("When Lady B. sent the man away, I suppose.")			
30.	Balance of small variations		21	13 8
	("What does this refer to?")			
	Total		279	15 8
	Profit		48	3 0
	("What a nuisance! Tinge must check the profit charge carefully.")		327	18 8

			2,033	5 8
			327	18 8
	("Oh, I say!")		2,361	4 4

SAVINGS ON PROVISIONS

31.	General contingencies		100	0 0
	("I thought it was £300—but now I remember I cut off £200 when I was trying to get down the contract price. By Jove, that's unlucky! Damn!")			
32.	Well (omitted)		135	8 0
	("I wish I had not cut down that provision so much")			
33.	Saving on ram and piping, etc., in lieu of pump		21	0 0
	("I expected a much larger saving. Oh, dear! This must include the special pipe and tank linings the analyst recommended. That is not my fault, anyway.")			
34.	Omission of return terrace wall	say	100	0 0
35.	Entrance gates		4	2 4
	("Every little helps.")			
36.	Omission of sun dial		59	1 0
37.	Various credits and allowances		32	4 5
	("What does that mean?")			
	Total		451	15 9
	Profit		16	14 0
	("Why have they allowed such small profit?")		468	9 9

		468	9 9
Total		1,892	14 7

("Oh, Lor! There will be an awful row about this! Brash has no idea of how things are. Anyhow, it's not my fault. I saved him the cost of the well, too. Let's see how much of all this am I actually responsible for?")

GRIGBLAY TO SPINLOVE

Dear Sir, 29/5/26.

As requested, we send you herewith summary of variations and shall be glad to receive certificate for £1,300 further on account. We have heavy commitments just at this time, and as the amount fell due in the middle of February last we shall be glad to receive your certificate and Sir Leslie Brash's cheque without further delay. The account, we may point out, now stands as follows :

	£	s.	d.
Contract	18,440	0	0
By variations account ..	1,892	14	7
	20,332	14	7
Less 5 per cent. retention	1,016	11	6
	19,316	3	1
Already certified ..	18,000	0	0
Due February 10th ..	1,316	3	1

This is the third or fourth application Grigblay has made for payment on account of extras, in respect of which Spinlove had previously certified only for £500.

So far as may be judged, the cost of making good omissions and defects due to oversights and mistakes of the architect is just about £400 ; and if Spinlove had provided against water driving into the chimneys and rising in the cellar, and so forth, the contract price would have been increased, so that his guilt in inflating costs is represented by an even smaller sum. In fact, having regard to the unavoidable small accidents and unforseeable contingencies that attend all building operations, a man of far more experience than Spinlove would be well satisfied to have no larger sum to account for. Spinlove, however, has unfortunately misled Brash with inadequate estimates given off-hand, but it did not appear that Brash attached importance to those estimates, nor that he would have abandoned the work had he been given exact ones. Spinlove has also let the account get out of hand : he has not kept himself informed of the state of affairs ; and he has neglected to enforce the contract conditions that extras shall be formally authorized, as such, at the time the work is done ; and he has not enforced the condition requiring the day-work vouchers, showing the time and materials expended on additional work which from its nature cannot be estimated by measurement, to be rendered week by week. This is bad ; but so many alterations were made by Brash, and there were so many interferences with the contract arrangements, that some excuse may be made for Spinlove. He did, in fact, warn Brash at the beginning of the building operations that, if the contract arrangements were interfered with, it would be impossible for him to safeguard extras.

The most indigestible part of the account is, however, the large excess of expenditure over the sums provided in the contract as "provisions" to meet the cost of work done by specialists, and of fittings subject to choice. These appear under the subheading "Extras on Provisions." The provision for general contingencies (item 31) was reduced by Spinlove from three to one hundred pounds, when he was trying to bring down the amount of the tender to a figure commensurate with Brash's swallow ; and it seems likely that he pared down the provisional sums originally allowed by him at the same time, and with the same object. It is a great temptation to an architect to let his hopes for the best overrule his judgment, in this way ; but it is a counsel of weakness and folly, or even worse, for his client supposes the contract sum covers the equipment he needs and, for the architect knowingly to mislead him, for the purpose of committing him to the undertaking, is dishonest. We cannot, however, take Spinlove to task, for we do not know the facts. What we do know, however, is that in the course of a year or two extras mount up, all unbeknown, in a most embarrassing way ; and that building-owners, after they are habituated to the contract price and warmed with enthusiasm for the undertaking, are prone to indulge their ambitions, and sometimes even try to forget past extravagances lest they shall discourage new ones.

It will be noticed that in imagining Spinlove's reflections on the summary so obligingly drawn by Grigblay in a form that analyses the account and saves Spinlove that trouble, I have represented him as accepting Grigblay's charge for pointing to make good damage by frost. This is a peep ahead on my part.

SPINLOVE TO GRIGBLAY

Dear Sir, 31/5/26.

I have duly received your Interim Summary of Variations, for which I am obliged, but I am concerned to notice that the total is even higher than you led me to expect. There are a number of charges that want explaining and others I certainly cannot allow, and I should like Mr. Grigblay to make an appointment to meet me here to go into the account, as soon as ready, bringing with him orders for extras, day-work vouchers, etc., supporting your charges. Also particulars of "Various minor works" £192, and reasons why the charge for picked bricks is made. I expressly arranged with Hoochkoft to supply at their original quoted price, as I informed you at the time.

When I have been into matters with Mr. Grigblay, I will arrange for Mr. Tinge to take up the account. Some of the items charged day-work will have to go into a measured account.

Yours faithfully,

I cannot see Grigblay spending hours unravelling day-work sheets to Spinlove's satisfaction, but perhaps he will temper the wind to the shorn lamb and send round the estimating clerk who has charge of the account. This clerk, however, would not be able to explain or justify the charges. The proper course will be for Spinlove to push his head into the papers ; get explanations from the builder on obscure points ; settle contentious matters with him, and then refer the account for Tinge to arrive at the exact figures.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 31/5/26.

I have at last received an "Interim Summary" of the account from Grigblay ; the exact figure has still, I am afraid, to be determined by the Quantity Surveyor, and there are certain charges which I cannot agree to—at least not without explanations—but I am very sorry indeed to say that the total is a good deal more than I expected. I am afraid the extras have mounted up very much, although you were perhaps prepared for this. I enclose a brief summary showing how the account stands, but this is not the final figure, which, I hope and trust, will be substantially less.

If I can give you more information, will you let me know ? The final account will not be ready for several weeks, I am afraid.

I enclose note of my own charges in respect of the last two certificates, which I omitted to send at the time. Will you please accept my apologies for my forgetfulness ?

Yours sincerely,

This is not, I fancy, the best of all possible occasions for Spinlove to apply for payment of his fees, even though he apologizes for not having done so before ; and our young friend's amiable characteristic of identifying himself with the torment his client suffers in parting with his money is here particularly inappropriate. We see Spinlove cringing before a lash he in no way deserves, and which he would have no reason to fear if he did not show he expected it. He invites Brash to be dissatisfied with his architect ; he tells him he had no idea the total would be so large, and apologizes for the amount, thereby avowing that he was neglectful in not keeping himself informed ; and he takes responsibility for matters which do not lie at his door at all. He is "very sorry indeed" for the total of the account ; he is "afraid" the extras have mounted up, although he supposes Brash expected they would ; he does not know how it has all happened, and he is "afraid" the account will not be ready for several weeks, although the delay is an unavoidable circumstance with which he has nothing to do, and only Brash's undisciplined impatience will suffer from it. If Spinlove's purpose had been to represent himself in the worst light, he could scarcely have devised a neater or more complete way of doing it.

His letter is the more absurd for the finished tact he displays in the document that accompanies it—the "brief summary" which is to inform Brash how the account stands. Spinlove, it will be seen below,

tumps the whole of the total balance of extras on to Brash by the adroit device of appropriating the whole of the credit items, totalling £468 9s. 9d., to himself, and cancelling them out against the extra expenditure for which he is personally responsible. The document is, in fact, not so much a statement of account between Brash and Grigblay as an apportionment of guilt between Brash and Spinlove. We may, I think, admire his ingenuity without being positively noisy in our applause. The facts set forth, however, are true ; the figures are exact, the information is what Brash asked for. Brash undoubtedly ordered the extras laid to his charge, and is responsible for the inflation of the account by the total of them, precisely as stated. At the same time . . . . However, the point for astonishment is that Spinlove should cover a document so conclusive of his innocence by a letter so eloquent of guilt.

SPINLOVE TO BRASH (ENCLOSURE)

SUMMARY OF EXTRAS

Ordered by

SIR LESLIE BRASH

	£	s.	d.
Approximate cost alterations to kitchen.. ..	400	0	0
Piping Ditch	114	5	6
Pulling down and restoring partitions by Lady Brash's orders	137	9	0
Extension and alterations of drains (for Aquarium)	84	17	6
New garage and washing place	426	19	0
Time lost on Terrace steps by Sir Leslie Brash's orders	11	6	3
Repairs new entrance road	66	13	0
Oak floor to kitchen passage (Lady Brash) ..	14	12	0
Various minor alterations	192	6	8
Grates and Ranges (excess as ordered)	22	0	0
Electric wiring (additional points as ordered) ..	21	5	0
Electric fittings (excess as ordered)	48	4	6
Sanitary fittings (excess as ordered)	53	17	0
Radiators (additions and alterations)	28	0	0
Special opening gear Casements (as desired) ..	27	7	0
Extra journey money (men dismissed by Lady Brash)	11	13	3
Various small items ..	21	13	8
OTHER EXTRAS			
Restoring brickwork damaged by frost ..	183	9	3
Various small extras ..	26	16	0
	£1,892	14	7

[NEXT WEEK : VIII—BRASH GOES IN OFF THE DEEP END]

IN PARLIAMENT

[BY OUR PARLIAMENTARY REPRESENTATIVE]

Housing Position

AN opportunity for a debate on the housing position was afforded in the House of Commons last week by the bringing forward of the Ministry of Health Vote.

Sir Kingsley Wood, from the Conservative benches, declared the present position of housing to be grave and disquieting. According to the official returns, there were at this moment 32,000 more building operatives unemployed than there were at this time last year. The Government by their policy and performance had paralysed the building trade, checked the output of building, done nothing to reduce the cost of housing, and failed to make adequate provision for the poorer-paid members of the community, whose needs were the greatest. Figures showed that for every five houses erected under the Conservative Administration two years ago, only one had been erected under the Labour Government today. The figures for houses under construction were certainly very depressing. In March, 1929, there were 65,018 houses under construction. In March of this year that figure had actually gone down to 28,177. In April, 1929, the number was 62,441, and in April, 1930, the figures were 30,888. In May, 1929, the number was 68,522, and in May, 1930, the number had fallen to 33,332. The price of houses had also risen. In March, 1926, the average price of a common parlour house was £448; in March, 1929, £336; and in March this year, £338. The position under the Housing (Rural Workers) Act, however, showed an improvement. Two great aids to national housing needs—private building and the great contributions of the building societies—had in no small measure this year saved the housing situation.

Slum Clearance Schemes

Mr. E. D. Simon, a Liberal, also criticized the Government, and urged them to take bolder measures. The Slum Clearance Bill, for instance, was a " timid Bill."

Sir Tudor Walters, another Liberal, said they would never deal efficiently with the problem of cheap houses and slum clearance until they had constituted a separate and definite department from the Ministry of Health—a National Housing Board—which could take the matter in hand and put some dynamic into it. They should go in for a twenty years' programme, and organize the materials and resources of the building trade.

Eventually, Miss Lawrence, replying for the Government, said this had not been a bad year for housing. By every test that it was possible to apply it would be proved that this year was very much better than last year as far as housing results were concerned. The total number of houses built by local authorities and also by private enterprise was up. The total number built between March, 1928, and March, 1929, was 169,532, and no fewer than 201,812 had been built from March, 1929, to March, 1930. The local authorities were once again coming forward with their work, and getting into their regular stride.

As the result of an exceptionally long final sitting, Standing Committee " A " has completed consideration of the Housing (No. 2) Bill, which embodies the Government's proposals for dealing with the slum clearance problem. The measure will now come before the House for the Report stage.

State-assisted Houses

Mr. Simon asked the Minister of Health whether he would give the number of houses finished in each year ending September 30 from 1923 to 1929, under the Housing Acts of 1923 and 1924, and by unassisted private enterprise, and similar figures for the six months to March 31, 1930.

Mr. Greenwood said that the following statement showed the desired particulars for England and Wales :

Period	Number of houses completed with State assistance under :		Number of houses completed without State assistance.*
	Housing, etc., Act, 1923.	Housing (Financial Provisions) Act, 1924.	
Year ended :			
Sept. 30, 1923	991	—	52,749
,, 1924	30,934	—	73,032
,, 1925	78,409	12,385	66,735
,, 1926	84,431	46,489	65,689
,, 1927	115,073	97,316	60,313
,, 1928	47,969	53,792	64,624
,, 1929	78,826	53,516	71,083
Six months ended :			
Mar. 31, 1930	—	25,078	53,393

* (1) Houses having a rateable value exceeding £78 (or £105 in the Metropolitan area) were excluded.

(2) The figures given in this column included houses erected by local authorities without State assistance. The number of these houses is ordinarily negligible, but in the half-year ended March 31, 1930, there were 1,605 such houses, presumably houses which were intended, but were not completed in time, to obtain subsidy under the Act of 1923.

Mr. Greenwood informed Sir K. Wood that the amount paid in housing subsidies since June 30, 1929, was £11,370,843.

ARCHITECTURE AT THE CAPE



A farmhouse of the Dutch period at Weltivreden. Buildings of this period, 1670, possess many qualities of individuality and charm. "The walls are thick and rough in surface, covered with a flaky texture of dazzling white limewash; the thatch is silver-grey and mushroom-brown, with a velvet-like sheen which varies with the hour. The plasterwork is rich and bold, yet graceful and pleasing in form, casting long shadows at midday and catching the sun's rays at dawn and at sunset."

THE wide eaves usually adopted in hot countries were never employed by the Dutch. Nevertheless, writes Mr. H. H. McWilliams, in the July issue of *The Architectural Review*, a Cape Dutch farmhouse is never hot in summer, either in appearance from the outside or in temperature within. The dazzling white walls are always broken with patches of shadow from the trees which surround the house, and in many examples a vine-covered trellis carried by great piers extends the total length of the front or occupies the courtyard.

The most important feature of the Cape house, writes Mr. McWilliams, is its gables. Of these there are many patterns, which for variety of form and grace of outline excel their prototypes in Holland. Nearly all of them are based on European examples, although in later days other influence became so pronounced that the tradition was barely observed. There are three types: First Period, 1670—Dutch; derived from examples in Holland. Second Period, 1690; French influence on First Period. Third Period, 1750; Oriental influence on First and Second Periods.

From prints and engravings such as they had at their disposal, and trusting a great deal to memory, the settlers tried to reproduce the gables of their home country, but the plastic nature of their medium softened outlines and mouldings until they lost all trace of their classic origin.

After the second English occupation in 1805 the true art of plasterwork in the country was lost. It was run to imitate stone mouldings, and it was rusticated and patterned in stone joints. One of the most disastrous fashions came into effect during the reign of Victoria the Good, when corrugated iron was invented.

Since then, many gables have been shorn off for what can only be known as "South Africa's Curse."



The back of Dauphine in Franche Hoek. Transitional design.



Dutch crow-step gable at Rustenburg.



In Stellenbosch village. Late Transitional period.



ENGLISH PRECEDENT No. 123

THE REGENT BRIDGE, EDINBURGH

In the Regent Bridge the Roman idea is expressed. A complete equilibrium reigns, and the light screen is carried without effort and with an enormous enhancement of scale.

Close at hand is Robert Adam's Register House, and the roadway is carried on past the Calton Hill.

—[J. MURRAY EASTON]

LETTERS FROM READERS

Art and Technology

SIR,—Your leading article on this subject (June 25) is provocative of thought and should prove helpful. Contrary to usually accepted opinion, England still leads in the encouragement of craftsmanship. The pity is that the bulk of building enterprise is not directed by architects. For many years past the London Construction Group, a society composed of architects, builders and engineers, has had co-ordination of interests in view. In fact, it is common knowledge that some of the precepts of the Group have been put into action.

As most thinkers view the subject, craftsmanship is neither a cult nor a form of arty snobbishness. Craftsmanship might be defined as work showing individuality. The question of the machine as an aid to production does not entirely eliminate the human element. Whereas one branch of craftsmanship is free and approximate, the other is distinguished by dead accuracy. The ultimate difference between the two branches is that of effect only. To carry the simile farther, let us think of free sketching and mechanical drawing; both have a specific value. It remains, therefore, for the architect and the builder to adjust the differences and to allow scope for the individual who is entrusted with the production of definite objects in selected materials.

The national intuition for structural craftsmanship, a legacy of the Middle Ages, has never died out. The present issue demands investigation and a constructive policy in the technical schools and training centres. The Trade Unions, moreover, should be told quite forcibly of the value of the apprenticeship system. If the workers understood that the morale upon which their work depends is threatened they would welcome a modern guild system.

Today practically six-sevenths of the population centre in the towns; the green and pleasant places have been denuded of their original stock. There is a sordid trickle of urbanization which is a symptom of apathy and despair. Architects and builders have been eager to snap up skilled craftsmen of country extraction, because they know that the best workers represent the folk-lore aspect of the building trades. But the supply of such men cannot go on for ever. Today the building trade is largely recruited in haphazard fashion. Standardization, substitute materials, insensate haste, foreign art movements and town life, have each and severally combined to crab individual attainment. The astonishing thing is that craftsmanship and pride in work has survived at all. But despite the forces of the devil, love of doing well does continue with a never-lowering tenacity. The technical schools, a product of our teeming population in cities and towns, do, to some extent, cater for the time-honoured branches of insular building. The young men trained in these schools do ultimately find employment by hook or by crook. If they could pass from the technical schools to the status of apprentices under reputable builders, the chief obstacle to improvement would be surmounted.

Speaking for the architectural schools, it is only fair to say that young architects are instructed in the treatment and the assembling of materials. It is not all style, modernism, design, or what you will. The London Construction Group is, in my humble opinion, the body best qualified to advise the Trade Unions. Perhaps it is not too bold to suggest that Professor Lethaby is the best ambassador to state the case.

A. E. RICHARDSON

Group Specification

SIR,—Specifications, like eggs, should be classified. Their usefulness all depends upon what service you wish to make of them; the Rough Egg Merchant would tell you that in the case of the curate's egg it was a waste of a "good" egg. This goes to show that all eggs, when classified, are serviceable in one way or another. Can we not also classify specifications for their respective uses?

If the object of a specification is to describe, in the main, the materials and labour not clearly defined upon the drawings, then a specification may be said to be governed by the amount of detail or information shown upon the drawings, and we may have a lengthy or a brief specification according to circumstances. Thus, a brief specification, where detail and information were not given upon the drawings, would not be unlike the curate's egg—good in parts, but unsuitable.

In the above remarks no reference has been made to kind: hen eggs, duck eggs, turkey eggs, and ostrich eggs. Just as we have different kinds of eggs (with variations in each kind), in a like manner we have different kinds or types of specifications, with their variations. We are dependent upon hens for hen eggs; we are also dependent upon the kind of contract for the type of specification.

Building contracts may be roughly divided in two kinds as follows: (a) Those in which bills of quantities form part of the contract, and (b) those in which bills of quantities *do not* form part of the contract, or where there are *no* bills of quantities. In the former case the estimate is based upon the particulars given in the bills of quantities, whilst in the latter case it is the specification and the drawings and the conditions of contract upon which the estimate is based. Again, in the former case the bills of quantities are subject to review, and any discrepancy between them and the executed work constitutes a variation on the contract; whilst in the latter case the specification is not generally subject to review, and there can be no variation in the consideration (amount of the contract) without the consent and agreement of the parties, irrespective of whatever may be shown upon the drawings or described in the specification or omitted therefrom. Hence, where quantities *do not* form the basis of the contract, or where *no* quantities are supplied for an equitable contract, the specification together with the drawings should describe or show everything down to the minutest detail; where bills of quantities are supplied and they form the basis of the contract, only technical instructions as to fixing and location need be described in the specification.

Referring again to my remarks on eggs, we find hen eggs are the most common, so are sub-contractors; duck eggs come next, so do general contractors; then turkey eggs corresponding to specialists, and ostrich eggs corresponding to special tradesmen. All these people have to be catered for; and suppose we assign to each class the corresponding kind, some may require a particular size and quality and, even in the case of hen eggs, a particular colour of shell. But suppose, as is suggested in the group system, we put all the different kinds of eggs in one basket, who is to take charge of the basket, or will each be allowed to sort out his own? Even if the group system can be made to accommodate them without any breaking of eggs, we should still have to consider the services to which specifications are to be put, and the different types of specifications to suit the different kinds of contracts.

It is essential that the specification should take the form most suitable for its purpose. The group system should be applicable in a limited number of cases, but they would only constitute a small minority. The form the specification should take should rest solely, in my opinion, with the specification writer. The first and foremost thing required of him is to study the circumstances of the case, and then prepare the specification accordingly.

T. SUMNER SMITH

Priced Bills of Quantities

KARSHISH REPLIES

SIR,—The letters on this subject persuade me that my comment was more to the point than I had supposed. Mr. Leaning has relieved me of the task of stating the facts; but as I have not made myself clear to Mr. Willis and Mr. Downe and, for some reason, have enraged Mr. Jelly, I should like to say that I think these gentlemen overlook the fact that, under the contract and by custom, the architect is constituted arbiter between owner and builder; and that his duty to one is as binding as to the other. Another cause of confusion is expressed by Mr. Downe when he says the architect is entitled to assume that builders can carry out at a profit all items they have priced. The assumption is not justified.

A builder tenders a lump sum. The acceptance of his tender sets up the contract. The Priced Bills form no part of the contract (Articles of Agreement, 4). The contractor furnishes the architect with a priced copy of the Bills for the purpose of giving effect to the stipulations of Clause 13 of the conditions, only (Conditions, 3). This sole purpose is the valuation, by the quantity surveyor, of variations (Conditions, 13). The verification of the Priced Bills (Conditions, 3) is for the purpose only of determining that Priced Bills have been furnished, and no errors or incompleteness in them will relieve the builder from his obligation to perform his contract. The rates the builder affixes to the items are his own affair, and unless, or until, it may become necessary to measure variations, they have no existence.

It will be seen, therefore, that the contract specifically debars the architect from informing himself of the contract rates, and that the builder has a right to expect that the architect will, in effect if not in fact, keep the Priced Bills sealed. An architect can have no objection to thus keeping them unless he intends to take advantage of being their legal custodian by secretly informing himself of the builder's rates; and as his only purpose in so doing is either to save himself trouble, or ingratiate himself with the building owner, or get some sly advantage over the builder, he is clearly false to his trust and acting dishonestly.

If, as Mr. Leaning says, this breach of faith by architects is becoming common, then I agree that the Priced Bills ought to be placed in the charge of the quantity surveyor; but as, under the contract, they are furnished to the architect, their handing over would establish that he cannot be trusted.

It is these considerations which lead me to the opinion I have expressed; and the evidence of your correspondence, I think, enforces it.

KARSHISH

Settling-Up Honeywood

SIR,—I am looking forward to Bloggs's comments on Architect's and Quantity Surveyor's queries, and think he and Grigblay should prove more than a match for Spinlove, even backed by his Q.S.

NATHANIEL LLOYD

Doric Architectural Club

SIR,—As we are mentioned in the letter from the Ionic Architectural Club published in your issue for June 25, we thought you would be interested to receive a few particulars of our club.



We organized the Doric Club in January, 1928, with twelve members; since then we have more than doubled our membership. The objects of the club were to bring together the junior assistants and pupils of Oxford architects, in order that they might further their knowledge in architecture, and to help them to take full advantage of the splendid facilities offered to them in this city.

These objects have been maintained, and numerous lectures, debates and design and sketching competitions have been organized which have done much to create enthusiasm and interest. It is now safe to say that all eligible young men in Oxford are members. Last year a public exhibition of members' work was given. This proved very successful and was greatly appreciated both by the profession and the general public.

We now have as President Sir Michael Sadler, K.C.S.I., C.B., D.LITT., Master of University College, and Mr. William Walcot, F.R.I.B.A., is Vice-President.

I have been requested by my Committee to forward you these particulars of the club, and have pleasure in enclosing an illustration of its badge, which has only quite recently been adopted.

A social outing with the Ionic Club was recently held, and on July 12 we are acting as hosts to them on the occasion of their visit to Oxford.

May I, on behalf of the club, take this opportunity of congratulating you on the excellence of your publication. The many recent improvements have greatly increased its popularity with our members, and several are contemplating entering your Sketching Competition.

K. A. STEVENS,
Hon. Secretary.

Architects and New Materials

SIR,—You recently referred to the fact that in the use of modern materials many errors are due to ignorance as to their use by the designer and not necessarily the fault of the material employed. These remarks of yours apply very exactly in the case of concrete. Here is a material from which many architects and engineers are deriving the greatest benefit, one which has been rapidly improved during the last few years, and is today very different from that which was originally used.

The making of cement is a highly technical problem, and some of the best chemical brains of the country are employed upon it. But the interest to the manufacturer does not end here. He also continues to advance by research the manifold uses of this material combined with various aggregates. This work is mainly to assist the architect to obtain more attractive effects, and to assist the engineer. For instance, investigations are being made by which it is hoped to reduce the amount of material required to carry the same loads. It is quite possible for either two architects or two engineers using the same materials to obtain two entirely different results, the poorer result being due to lack of exact control over the mix.

To obtain success today it is essential that architect and manufacturer should work in closer co-operation. Full credit for the design of a building should go to the architect, but it is not forbidden to the manufacturer to have a feeling of pride in the same building, because his materials have been used in it, and used to the best advantage. It was therefore with some gratification that we saw your remarks, and if, as a result, a greater use is made of the services which the manufacturers place at the disposal of the architects and engineers, they will have served a very good purpose.

R. A. B. SMITH,
The British Portland Cement Association, Ltd.

QUESTIONS THAT ARISE

Roof Truss

G. F. R. writes: "*What is your expert's opinion as to the truss illustrated upon the accompanying drawing, to span 25 ft? It is proposed to build up the truss in best yellow deal with the members spiked or bolted together, and I shall be glad to know if the various members are thought to be of the required section, and if the ½ in. tie rod is strong enough. The building is a single-story village hall.*"

The truss, as shown in the accompanying sketch, is sound in design and economical, and would probably stand quite well all the stresses put upon it, but suitability is more a matter of the safety factor which it is desired to allow. Although it is stated that the roof is not very exposed to winds, even in sheltered positions such stresses are very indeterminate and liable at times to be excessive; hence the general desirability of a broad margin of safety.

Quite apart from any question of collapse, the wide spacing between trusses gives a certain flexibility in the roof which tends to a general deterioration of the structure and covering, particularly if unusual stresses are repeated, and in a permanent structure it is desirable to reduce this flexibility as far as is reasonably practicable. I consider it would be cheaper, for this purpose, to introduce the extra truss rather than increase the general weight of the members. The wider spacing would make stiffer main members desirable and also stiffer purlins, and preferably thicker battens for the tiles. The extra truss, however, would give greater stiffness to the whole roof structure, and give a better distribution of the weight on the walls.

If it is preferred to keep to the truss spacing, 11 ft. 6 in., while still aiming at a generous safety factor, the dimensions of the main truss members and the purlins should be increased slightly. The exact position of the structure and the wind pressures to which it might be exposed alone can indicate whether it will be satisfactory to accept the existing design, for although it might prove perfectly satisfactory for an indefinite period the factor of flexibility above mentioned certainly suggests aiming at a more definitely rigid construction, and this, as stated, I consider would be best attained by an additional truss.

A. H. H.

Damp in Chimney Stacks

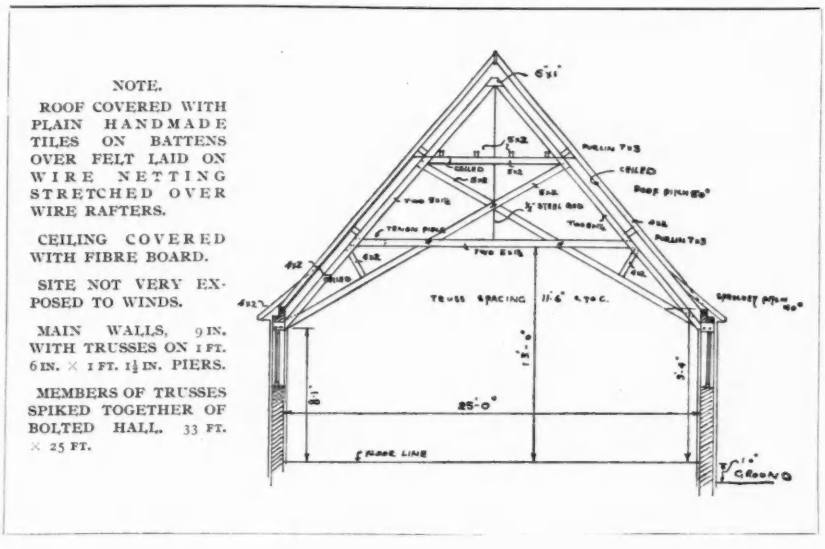
W. B. H. writes: "*I am putting 4 lb. lead damp-proof courses in all chimney-stacks of brick just above the flashings or soakers and stepped up by ¾-in. rise and 2¼-in. horizontal runs—which fits both brickwork and a roof at 52½ degrees pitch. The brickwork has to be built in header bond at the flanks of chimney-stacks to permit of this.*

"*Which is the best way of inserting damp-proof courses into existing chimney-stacks which need them? I find after the work had been built some years the brickwork got saturated with wet last winter, and eventually water dripped on to first-floor ceilings or even soaked into roof timbers touching the stacks.*"

It is difficult without the fullest particulars to answer any question, but with regard to the lead damp-course which this correspondent says he is now building into his stacks, I would deprecate so much stepping. The trouble is caused by penetration on the whole exposed surface of the stack, and the best dampcourse is lead carried through and turned up inside the flues so that moisture draining down the inside may be caught in what amounts to a small gutter, and drain outwards.

With regard to the old stacks, the only way of inserting slate or lead d.c. is to take down the stacks and rebuild them. He might try the British Knapen System, which would possibly cure the damp question, but when inserting the porous tubes, damage might be done to the lining of the flues. Again, a good deal depends on the position of the stacks, but it is worth looking into.

DELTA



Glazed Bricks

SIR,—Can you give us any information on the causes of flaking and spalling in glazed bricks? We have a building in which flaking of the glaze is taking place on most of the vertical joints. It is a large single-story industrial building about 30 ft. high. The wall panels, between piers, are of 14-in. brickwork, built wholly in cement mortar (cement and sand) in English bond. The external facings are local, well-burnt, purple-flashed bricks, and were pointed as the work proceeded. The internal facings are glazed bricks; a brown dado, green string, and remainder white, and were all pointed down on completion in white cement. There is an asphalt damp-proof course, and the stone window-sills are all bedded upon lead seatings. Work was completed about twelve months ago.

Quite recently we have found that the glaze is being flaked off the vertical edges of the brown glazed bricks. The bricks themselves seem quite sound. No defects of glaze appear in the centres of the bricks, and practically none in the horizontal joints. The cement pointing is perfectly firm and hard, but exhibits a white, powdery scum (which does not show upon the bricks, however). Both the green- and white-glazed bricks are entirely free from defect.

The matter is serious, the more so as its remedy seems likely to be either an expensive or an unsatisfactory one. We shall be glad, therefore, if you can give us any information which will be of use in determining the cause of the defects, or any suggestions for dealing with it.

"GLAZE"

[The Editor invites readers to reply to the above inquiry.]

THE SPECIFICATION WRITER

The Group System: ii

BY A. SEYMOUR REEVES

IN some cases *GROUP I: STRUCTURAL AND CARCASS WORK* may be lengthy; in others, it may be very short. The proportions in concrete and mixing of the same will have been given in the general clauses, as also the definition as to bricks, quality of timber, and similar points. The drawings and the general clauses may provide so much information that little more is needed in the statement of structural work. But with buildings of some complexity, further information in documentary form will be advisable or necessary.

It is best to start with work below ground floor, commencing with foundations, concrete and brick, or masonry, and following with walls up to ground floor or dampcourse. If vertical dampcourses are required, they would be dealt with here.

The basement floor will be defined thus :

Basement floor : Lower bed, 9 inch concrete with ¾ inch asphalt on top, joined to vertical asphalt with angle fillet. Upper bed, 6 inch concrete.

Work above ground floor will follow, commencing with the horizontal dampcourse, any points in connection with walls and piers, from ground floor up to roof. The structure of floors, if of concrete, the thickness and reinforcement, any necessary information as to patent floors, templates for R.S.J's., bases for stanchions, etc.

Then will follow :

ROOFS

Pitched roofs

Particulars of trusses, etc. Sizes of all timbers. Roof boarding and battens. Slating or tiling. Flashings, soakers and gutters, rainwater pipes. In the case of several pitched roofs of differing spans and treatment, it is best to deal with each roof in a complete group of clauses rather than to make one clause cover all trusses, another all rafters, etc. With gutters, the structure, of wood or concrete, and the lining, lead or asphalt, to be defined. In the case of eaves, cornices or soffits, their definition would appear together with the roofs to which they belong.

Flat roofs

Structure, in timber, concrete, or patent blocks. Covering: lead, asphalt, etc. Cesspools, gutters and r.w. pipes.

EXTERNAL FACINGS, ETC.

Any information under this head would appear here, whether in brick, rough cast, masonry, or other material. In the case of a city building, with a front and back elevation and practically no flanks, the simplest way is to deal with each separately. Thus, if a cornice is to be covered with lead, that would be defined here, with all necessary information, also copings to parapet walls, and *external* lintels to windows and doors. (The internal lintels to windows and doors would appear with the windows and doors.) Plinths or skirtings would be defined as required.

As the general clauses will have given the necessary information as to materials, there is no need for lengthy descriptions. So long as the information is provided on the points required, brevity of statement is advisable.

This will complete the first group comprising structural and carcass work.

INTERNAL FINISHINGS

The group system perhaps can be more helpful in this section than in any other. With a large building containing a variety of finishings this method can provide clear definition to a degree that is far beyond anything that trade classification can attain.

The method recommended by the conference is that which describes each room, or group of rooms with similar treatment, the description to cover surfaces, doors, windows, fireplaces, fittings, and number of radiators and lighting points. External doors to appear with the corridors or lobbies from which they open. Steps for external doors to be defined with the doors.

Example :

BASEMENT

Ceiling	..	Limewhiten soffit of concrete.
Walls ..	..	Portland cement plain face 1 inch thick, twice limewhitened.
Floor ..	..	1¼-inch granolithic paving.
Skirting	..	1 in. by 6 in. granolithic chamfered.
Doors ..	..	1½-in. deal four-panel square framed, hung with one pair 4-in. steel butts to 4 in. by 3 in. rebated and rounded and painted four oils. Fit with rim locks and furniture P.C. per set. Lintels of cast concrete, 9 in. by 3 in., with smooth faces and reinforced with ——.
Windows	..	Steel frames and casements P.C. — per foot super. Build in same and point with cement fillet. Glass, 26 oz. Paint four oils.
Light Points	..	Three.

GROUND FLOOR

Vestibule

Ceiling	..	Fibrous plaster (including cornice) to be supplied by a selected firm P.C. — to be fixed by contractor on rough fir grounds and painted three oils and one enamel.
Walls ..	..	1¼-in. marble slabs.
Floor ..	..	1¼-in. marble squares in black and white.
Skirting	..	1 in. by 7 in. white marble.
Doors	..	2 in. oak in six panels bolection moulded outside and flush on other, hung folding with 1½ pairs brass butts to each leaf, 4 in. by 3 in. oak moulded frame, 3 in. by 1¼ in. oak moulded architrave. Fit with rebated mortice lock (etc.). Oil and polish. Lintel, 9 in. by 3 in., concrete as before.
Steps ..	..	1¼-in. white marble treads with rounded nosings and 1-in. risers to match, all on concrete core.
Light Points	..	One.

Main Office

Ceiling	..	Keene's cement twice whitened.
Walls ..	..	Keene's cement dado 3 ft. 6 in. high, painted four oils. Lime plaster above twice distempered.
Rail ..	..	Dado rail, 2 in. by 3 in. deal moulded, painted four oils.
Floor ..	..	1¼-in. pitch pine blocks laid in mastic, with double borders.
Skirting	..	1¼ in. by 6 in. deal moulded, painted four oils.
Doors ..	..	1½-in. deal, moulded both sides (describe all work, including frames or linings, ironmongery, fanlights, glass lintels, jambs).
Windows	..	As basement, but glazed with ¼-in. plate glass. Window boards 1¼-in. deal, with rounded nosing. Jambs, Keene's cement. Concrete lintel, 9 in. by 6 in.
Cupboards	..	(Describe any fittings in full.)

Radiators	..	Four.
Light Points	..	Six.

Manager's Room

Ceiling	..	Fibrous plaster as vestibule.
Walls ..	..	Mahogany panelled and moulded dado, with 1½-in. framing 5 ft. high, with moulded capping and blocked skirting as detail, all french polished. Keene's cement above dado painted four oils.
Floor ..	..	1¼-in. oak blocks laid basket pattern, wax polished. (Doors and windows, if differing from previous types, will be fully described, also fittings.)
Fireplace	..	Grate and chimneypiece will be supplied by a selected firm P.C.—— Contractor to form opening 2 ft. wide, with concrete lintel and set grate chimneypiece and tiled hearth. (Any concrete slab for hearth to be defined here.)
Radiators	..	Two.
Light Points	..	Two.

Every room in the building does not require a separate description. Only those with differing treatment need be separated, those which are similar will be grouped. If all deal is painted, and all plaster distempered, that can be stated in a general clause. Where there is to be differentiation, however, separate definition is advisable.

(To be concluded)

COKE breeze and clinker, on account of their cheapness, have come into very general use as aggregates in concrete. And their lightness has given them additional attraction where reinforced concrete is concerned. When in contact with steel, however, even in conditions and positions usually regarded as dry, corrosion is a possible danger. This particular risk is sufficiently serious to have been the subject of investigation at the Building Research Station, where it has been conclusively shown that it is the sulphur compounds, in the breeze and clinker, rather than their porosity and permeability to damp, that are responsible for certain failures due to the cause indicated. The Building Research Special Report, No. 15, published at the price of 6d. by H.M. Stationery Office, gives the results of the tests, indicating also the relative behaviour of various types of these materials.

Fireproof Glazing

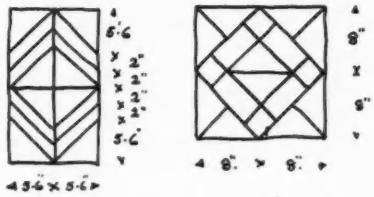
THE London Building Acts (Amendments) Act, 1905, Clause 7, Part II, requires the glazing of certain parts of buildings, where normally lead cames would be used, to be carried out with a metal having a melting point not lower than 1800° Fahrenheit. Further, the glass shall be not less than ¼ in. thick, and the squares shall not exceed 16 sq. ins. in size. Panels of such glazing shall not exceed 2 ft. either way, but they may be joined together by metal division bars, so that a door or window panel can be built up. The metals permissible under the Act for this glazing, both for cames and bars, are iron, steel, copper and bronze. The two last metals are most frequently used for the cames on account of their greater pliability, and steel for the strengthening bars. Thus, within the limits of the L.C.C. regulations, a wide range of possible designs is open to the architect which has never been fully exploited. In the majority of buildings one too often observes the line of least resistance to have been taken, and squares of 4 ins. by 4 ins. or 3 ins. by 5 ins. are repeated with the wearisome monotony of a prison grating.

Copper and bronze will not bend so freely as lead, but, bearing in mind this limitation, an almost infinite number of patterns can, with the aid of simple mathematical calculations, be designed.

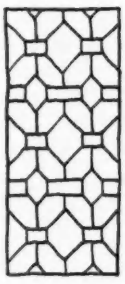


SIMPLE DEVELOPMENT OF THE L.C.C. UNIT

Take an example of triangles: any triangle with a base of 8 ins., and a perpendicular to it from the apex of 4 ins., will comply with the Act. In a recent instance panels in the doors, 8 ins. by 4 ins., were glazed with fire-resisting glazing, and the architect has divided this into three triangles, the largest being 16 sq. ins. The result is interesting and practical. Parallelograms combined give further variety.



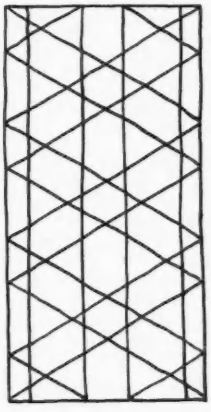
FURTHER COMBINATIONS OF THE UNIT OF AREA



DESIGN ADAPTED FROM OLD ENGLISH LEAD GLAZING

Many of the geometrical patterns in old leaded glazing are suitable for copper and can be adapted into pleasing designs for fanlights, glazed doors, or peepholes in swing doors.

A wider field of inspiration may be found in the Eastern geometrical forms, and especially the Indian and Arabic pierced lattice panels. The variety of these forms to be found in stone and wood is endless, the piercings are small, and many of those executed in the eighteenth and nineteenth centuries have a surprisingly Western feeling. Even the coarser forms of the pierced earthenware panels suggest schemes of simple squares and rectangles more inviting than the chessboard squares of the staircase doors in the office block.



DESIGN ADAPTED FROM AN ARAB LATTICE

The grisaille designs in mediæval stained glass often suggest appropriate motifs, but these must be used with discrimination, as the curved forms of the cames, while possible to make, are expensive, and the feeling of the material may easily be lost in a poor imitation of lead glazing.

The possibilities of treatment are endless, and a further variety can be obtained by using the ribbon cames together with the wider ⅛-in. and ¼-in. H-shaped bars; but curves and natural forms that suggest lead glazing are best avoided.

PANTILUS

Comparative Costs of Heating

THE numerous factors which have to be considered in estimating the ultimate cost and value of any one heating system, as compared with another, render absolutely comparative determinations almost impossible. There is much information, however, to be obtained from an account of a series of experiments and observations, extending over five years, which were

given by A. H. Barker, M.INST.C.E., at the Joint Gas Conference at Birmingham recently.

The tests were conducted in a private house specially equipped with the necessary apparatus to give practical comparative results. With regard to heating, it was shown that gas boilers can only be employed for such purposes as central heating and the supply of hot water in a circulating system at a cost in gas of about 3·7 times the cost of solid fuel; that the general use of coal fires to produce the same results as are obtained by a good system of central heating costs 2·7 times as much as when coke is burned in the boilers; that gas fires in a continuously used room cost about 2·2 times as much as the corresponding coal fires, while in an occasionally used room the actual cost is less than coal fires, depending on the degree of use. The electric fires in the same conditions are found to cost from 1·57 to 1·98 times as much as the gas fires. A point which is emphasized is that the cost of gas and electric fires does not represent their true economy, as coal fires, for example, involve additional costs in labour, chimney cleaning, and extra cost in re-decoration.

The question of heating as applied to large buildings is similarly subject to no absolute rule, and a very interesting example is seen in a description, presented before the Institution of Civil Engineers by the same author, of the electrical heating and ventilating installation of Bourne and Hollingsworth's premises in Oxford Street, London, W. The building is believed to be one of the largest to be heated and ventilated solely by electrical power, and probably, so far, the only one in which the whole of the power is controlled and regulated by electrical means from one central control chamber. The decision to use electrical power was based on purely economic considerations, since the use of any of the alternatives—i.e. solid fuel, oil and gas—involved ultimate cost, trouble and possible damage which outweighed the higher initial cost of electric power. Apart from the trouble of delivering large quantities of solid fuel and the dust associated with the removal of the ashes, it was considered that the heat, fumes and smoke of a boiler-house would cause a serious nuisance both on the premises and to surrounding property.

The use of gas would have involved the consumption of not less than 20,000 cubic feet of gas per hour, with consequent huge quantities of combustion products, with their smell and corrosive condensate. The necessity for drawing a large part of the air required for the ventilation of the building from the roof made it impossible to contemplate the release into the atmosphere near the fresh air inlets of the 100,000 cubic feet of products of combustion per hour which would have been involved. Other considerations related to the possible damaging effect on the valuable fabrics and materials in the premises.

The ventilation system adopted is a pure plenum system, with closed windows, by which a slight excess of pressure is maintained in the building, to exclude dust-bearing currents of air from the street. The warming of the building is effected partly by warming the plenum air by electrically-heated coils and partly by direct electrical radiators in the shops. This installation, although representing unusual conditions, is a good example of extraneous factors necessitating a much wider view of heating costs than is usually taken. A. H. H.

THE British Engineering Standards Association has recently issued comprehensive conversion tables of inches to millimetres and millimetres to inches, covering both fractional and decimal subdivisions of an inch. The tables of inches and fractional subdivisions of an inch give the conversions of every 1/64th of an inch up to and including 12 inches, whilst those for inch measurements in the decimal system give the conversions of every 1/1000th of an inch up to 1 inch. The table of conversions of millimetres to inches gives the conversion of every millimetre from 1 to 1000.

Included in the publication, which is obtainable from the offices of the Association, 28 Victoria Street, S.W.1, at the price of 2s. 2d., post free, is a table giving conversion factors for linear, square and cubic measures, weights, stresses, pressures and weights per unit length, for various measures common in engineering. The published figures have been checked by the National Physical Laboratory, and the publication is printed from stereotype plates, so that there may be no risk or errors resulting from displacement of type.

Standardization of Electrical Wiring Accessories

A DEVELOPMENT of distinct interest and importance as regards electric wiring contracts is just announced by the firms comprising the Cable Research Committee. This constitutes the introduction, as from the end of June, of a complete range of new and improved accessories which have been standardized for use with all the wiring systems of the members.

The development of the electrical industry, and its rapidly increasing application in domestic and similar establishments, has been accompanied by a mass of accessory fittings, the sizes and features of which vary with every maker. Complete standardization of all such appliances is not yet within sight, but the present move will be welcomed by all users who appreciate the effect of economy of time in installation which will result. In future it will not be necessary for any contractor to stock more than one type of accessory to use with any particular type of cable to enable installations to be carried out on any of the systems concerned.

The companies adopting this standardization are British Insulated Cables Ltd., Callender's Cable and Construction Co., Ltd., W. T. Glover & Co., Ltd., W. T. Henley's Telegraph Works Co., Ltd., the Macintosh Cable Co., Ltd., St. Helens Cable and Rubber Co., Ltd., and the Union Cable Co., Ltd. The various wiring systems of all these concerns are catered for in the new list of accessories. The apparatus will be sold under the "C.R." trade mark, which will stand as an indication that they embody the results of the co-operative investigation and research of the firms associated in the Cable Research Committee.

W. T. Henley's Telegraph Works Co., Ltd., have already issued three lists covering respectively their Twin, "Nomet" and "Bondit" wiring systems. These cancel corresponding lists of earlier dates and any models shown in the cancelled lists which do not appear in the new ones will not be supplied after the existing stocks are exhausted. The accessories dealt with in the new lists cover fixing clips and saddles, bonding, fittings, joint boxes, protective steel covering, earthing clips, porcelain connectors, cleats and similar details. A commendable feature of the joint boxes is their simplicity and ease in fitting. The clamps are arranged inside the box, in the case of metal sheath wiring, so as to ensure ease and speed of inserting the wires. For use with metal sheath wiring with bonding conductor, the internal bonding clamps are replaced by a terminal pillar for the reception of the copper bonding conductor, which is incorporated in the cable. These boxes are of tinned brass, while those for the non-metal sheathed wiring are constructed from high-grade bakelite and embody fixed terminals. The joints and bonding can be readily inspected by simply removing the cover, without removing any screws or disturbing the bonding arrangements. Alterations or additions to the connections can easily be made. This move for standardization can be accepted as an important advance in the manufacture of electrical accessories, and one which will be very welcome to the wiring contractor.

LITERATURE

APPLIED SCULPTURE

THIS book is a treasury. The gathering of its riches has been laborious; the result is most praiseworthy if not completely satisfying. How could it be? There are thousands of good sculptors alive today, and many workshops in addition to the studios, where skilled craftsmen ply their trade. Mr. Aumonier has sought entrance to both with much success. But choice there had to be, and from among the many sculptors of the world it is difficult to choose; more difficult to choose from the multiple productions of the workshop. Both things have here been done in a single album, and it is open to question if the two products would not have been better served by being kept apart.

An encouraging fact that emerges during the turning of these handsome pages is that the sculptors are realizing that their real function is architectural, and the craftsmen that theirs is structural. This is altogether desirable.

There is, however, a good deal of sculpture illustrated which is not architectural either in conception or content. For the want of better words it is known as ideal sculpture; it is the statement of beautiful form apart from any practical utilization, and it is all to the good that illustrations of these pieces should be seen so that a proper realization of the strides that sculpture has made during the present century shall be made. This progress has been great, but even greater that of applied sculpture, which is the real subject of this volume.

It is the architectural application of sculpture, both structural and ornamental, that gives importance to most of the plates. The modern spirit has given to both architecture and sculpture life that has changed the forms of this art and craft. The trend is architectural rather than ornamental, however, and now, apart from form, the problem which confronts designers is the placing of sculpture.

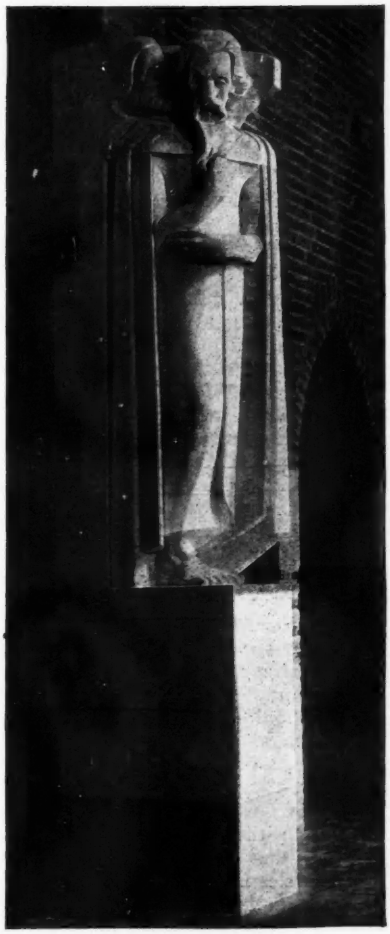
First and foremost, it must be organic with the building, and in these plates it may be seen that this is being realized.

Again, what is of the greatest moment, and more than justifies the toil of its preparation, this book will show the way to those who may not, up to the present, have completely seen it. Those who have most clearly realized this necessity and observed it in the new way are W. A. van de Winkel and Hildo Krop of Holland, and Gutfreund and Stursa of Czechoslovakia. Theirs is the structural view.

Many fine plates illustrate the older, and conventional, application of ornament, and show also immense improvement. Others illustrate the growth in taste and usefulness of the detached members of a building which are not actual parts of the structure, but add to its dignity and interest.

A complete review of the world's sculpture is not possible. Some fourteen countries are here represented, and there remains the work of Belgium, Spain, Hungary, Russia, Finland and Iceland for attention, inasmuch as there are great sculptors—for instance, Einar Jonsson in Iceland and Aaltonin in Finland—who are completely obsessed by the architectonic sense.

Some 136 individual sculptors and firms are dealt with, but Kafka and Saloun in Prague, José Clará of Barcelona, are not included. Jan Stursa, the Czech, as great a master of form as Rodin, is inadequately represented, and the examples of Joseph Bernard do not represent his strong architectonic feeling.



[*From* Modern Architectural Sculpture.

Church at Scheveningen, Holland. C. M. van Moorsel, architect; W. A. van de Winkel, sculptor.

The selection of English work is very good, but there are significant names omitted—Katherine Maltwood, Phyllis Clay, and Charles Wheeler.

Judged by what it contains rather than by what it omits, *Modern Architectural Sculpture* is a work which must be in the hands of every sculptor and architect as well as those of every lover of modern sculpture, all three categories which are daily increasing in knowledge and numbers.

KINETON PARKES

' *Modern Architectural Sculpture.* Edited by W. Aumonier. London : The Architectural Press. New York : Charles Scribner's Sons. Large 4to, pp. xvi and plate pages 160. Price £3 3s.

Publications Received

Oxy-Acetylene Welding and Metal Cutting within the British Empire. Published by the British Acetylene Association, 12 Russell Square, London, W.C.1. Price 7s. 6d. net.

Land of the Pepper Bird. By Sydney De La Rue. London : G. P. Putnam's. Price 15s. net.

The Corrosion of Steel by Breeze and Clinker Concretes. By F. L. Brady, M.SC., A.I.C., Department of Scientific and Industrial Research. Special Report No. 15. London : Published by H.M. Stationery Office, 1930. Price 6d. net.

THE TIMES "CHURCH AND EMPIRE" NUMBER

THE special "Church and Empire" Number of *The Times* for June 25 had some excellent illustrations of English and Dominion cathedrals, and as well a reproduction of the famous isometric projection of St. Paul's by Messrs. Brook-Greaves and Allen. I think it is a fact that in spite of broadcast services never was the importance of religious *buildings* so much realized by all religious bodies as now, and so *The Times* has included more pictures of buildings than of bishops. The average man, who may be put down an indifferentist in religion, is very strongly in favour of order and decency and a civilized life, and sees in the normal shape of a church something which expresses his ideal of civilization; i.e. the central steeple or dome and its supports, the four arms of the cross, do correspond to his governmental idea of a dominant central authority and federated branches. Internally, both the Abbey and St. Paul's make the beauty of that idea very clear to him; externally, Salisbury and Canterbury proclaim its imperial grandeur across many miles of country. The haunting fear that, as a result of the world's many changes, European culture may be "sanded up," as has happened to Chinese culture, is dispelled by the thought of these vast cathedrals.

P. M. S.

LAW REPORTS

FISHING RIGHTS

Whitley v. *Stumbles. House of Lords. Before Lords Hailsham, Warrington, Atkin, Thankerton and Macmillan*

THIS was an appeal by the plaintiff, Mr. H. Whitley, from a decision of the Court of Appeal, affirming a decision of a King's Bench Divisional Court, setting aside a judgment of the County Court judge sitting at Kingsbridge County Court, Devon. The case was reported in THE ARCHITECTS' JOURNAL when it was before the King's Bench Divisional Court and the Court of Appeal.

The appellant was the landlord of the Royal Sands Hotel at Slapton, Devon, and the respondent, Mr. Alfred Percy Stumbles, was the tenant. The respondent's predecessor in title held the hotel with certain exclusive rights of fishing in Slapton Ley, which adjoins the hotel, and it was alleged that the pike-fishing amenities were an attraction to visitors. The respondent desired a new lease of the premises. The matter went to a referee, who held that the tenant had a right to a new lease, together with fishing rights. The County Court judge held that the fishing rights were not "premises" within the meaning of the Landlord and Tenant Act, 1927, and remitted the matter to the referee. The respondent appealed, and the Divisional Court of King's Bench held that the tenant was entitled to the inclusion of the fishing rights in his lease. The Court of Appeal affirmed that decision. The landlord now appealed.

The House of Lords now dismissed the appeal, holding that the word "premises" in section 17 (1) of the Act was not limited to lands and buildings, and that the respondent, who held the lease with fishing rights, was entitled, on the grant of a new tenancy, to have the fishing rights included in the new lease.

MANOR FINES

The Prince of Wales as Lord of the Manor of Kennington v. *Bradshaw. Chancery Division. Before Mr. Justice Farwell*

THIS was an action by the Attorney-General for the Prince of Wales as Lord of the Manor of Kennington, which forms part of the possessions of the Duchy of Cornwall, for the decision of a point whether he was entitled, under the new Law of Property Act, to the payment of a fine on the death of a copyhold tenant.

Mr. Geoffrey Lawrence, K.C., the Attorney-General to the Prince, said defendant was Mr. Hercules Montague Edwin Bradshaw, a grandson of Mr. Octavius Bradshaw, a late tenant of the Manor, and executor and trustee of the estate for the purposes of the Settled Land Act. The contention of the defendant was that no fine was payable, and that the manorial incidents were to be extinguished by the payment by him of compensation calculated upon his age, which would materially reduce the amount.

Mr. Wilfred Green, K.C., for the defendant, contended that no fine had become, or would on any occasion become, payable by reason of the death of the grandfather. Researches showed that no such custom existed in any manor at all.

His lordship decided in favour of the Prince of Wales for payment of the fine and costs. He held that modern legislation did not intend to deprive the lord of the manor of the fines to which he would be entitled under the old law on the death of the tenant and subsequent admittance of the heir or divisee.

ALLEGED NUISANCE BY KEEPING DOGS

Gladstone v. *Murray Wilson. Chancery Division. Before Mr. Justice Farwell*

THIS was a motion by Mrs. Alice Sidney Gladstone, of 26 Holland Park Villas, Kensington, against Mr. Geo. Murray Wilson and his wife, Mrs. Lilian Murray Wilson, who reside next door to the plaintiff, for an injunction to restrain them from keeping or permitting to be kept on their premises or any part thereof any dogs so as to cause a nuisance to the plaintiffs.

Mr. Vaisey, K.C., for the plaintiff, said his client was the freeholder and occupier of her premises, and had lived there since November, 1927. At that time the defendants kept in their house one adult poodle. Shortly afterwards they acquired another poodle, and by the summer of 1929 they had two other poodles. Later, four puppies were born, and now the defendants had eight dogs on the premises. Up to October, 1929, the noise made by the dogs was not unreasonable, but since that date there had been continual barking day and night, which prevented sleep. Plaintiff had made many complaints to defendants, but nothing had been done to abate the nuisance.

Plaintiff's evidence in support of this was read, and a number of affidavits by servants and neighbours supported it.

The defendant, Mrs. Murray Wilson, asserted that her dogs were being made the scapegoats of all the dogs in the neighbourhood. She understood that the case was not coming on till October, and she had not prepared any evidence, being busy with dog shows.

His lordship granted an interim injunction.

At the second hearing Mr. Vaisey, K.C., represented the plaintiff, and defendants now appeared in person and consented to the motion being treated as the trial of the action and the injunction being made perpetual.

His lordship made the order accordingly, with costs.

MERCHANDISE MARKS ACT

Hamilton Trading Co. v. *London Chamber of Commerce. Tower Bridge Police Court. Before Mr. Griffith-Jones*

THE Hamilton Trading Co., Ltd., of 127-129 Newington Causeway, were charged in a prosecution under the Merchandise Marks Act with having sold paint with the false trade description of white lead paint, and were fined £15 and £25 costs. The prosecution was instituted by the London Chamber of Commerce, and was conducted by Mr. C. W. Measor, barrister, instructed by Messrs. White and Leonard.

Evidence was given that there were advertisements in the window of the Hamilton Trading Co.'s shop of "white lead paint." Mr. H. D. Menear, painter, on December 17, bought a 7-lb. tin, asking for "white lead paint as advertised in the window." Messrs. Friend, painters, on December 30, bought another tin upon a written order, for "7 lb. genuine white lead paint." Mr. Russell-Smith, analyst, said that his analysis showed that the lead contained in the tins was only ·04 per cent. of the pigment, over 78 per cent. of the pigment being barium sulphate and over 13 per cent. being zinc sulphide, and that in his view this was a low grade lithopone. Reference was made to the British Engineering Standards Association Standard Specification for white lead paint as showing that this should consist of not less than 76 per cent. of white lead.

The defendants stated that they had purchased the tins from Messrs. E. B. Blackwell, Ltd., of Bedford Road, Clapham, labelled "superfine white paint containing genuine English stack white lead," and had written that they "were under the impression that it was quite in order to invoice this paint as white lead paint," but that since the matter had been brought to their notice they had altered their practice of sale.

The Magistrate said that this was a very proper case for the London Chamber of Commerce to have brought.

THE ARCHITECTS' DIARY

WEDNESDAY, JULY 9

R.I.B.A., 9 Conduit Street, W.1. Exhibition of Models, masonry specimens, drawings and photographs of St. Paul's Cathedral. 10 a.m. to 8 p.m. (Saturday 5 p.m.) **10 a.m.**

ROYAL ACADEMY, Burlington House, S.W. Summer Exhibition open to the public. Open until September. **10 a.m.**

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. International Exhibition of Modern Commercial Architecture. Open until July 12. **10 a.m.**

LIVERPOOL SCHOOL OF ARCHITECTURE. At the Walker Art Gallery, Liverpool, Annual Exhibition of Architectural Drawings, open to the public until July 19, from 10 a.m. to 6 p.m. **10 a.m.**

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) "Architecture (1)." By L. O. Faraker. 3 p.m. **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. **10 a.m.**

KINGSTON-UPON-THAMES PUBLIC BATHS COMPETITION. Exhibition of designs at the Tiffin Boys' School (old building) until July 23. 12 p.m. to 8 p.m. **2 p.m.**

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. At Scarborough. Annual Meeting and Conference. Until July 12.

INTERNATIONAL ACETYLENE CONGRESS. To be held at Zurich, July 9 to 12.

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Exhibition of Egyptian and Palestinian Antiquities. Until July 26. 10 a.m. to 5 p.m. (July 15 and 25, 6.30 to 8 p.m.) **10 a.m.**

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE. Annual Provincial Meeting at Hotel Metropole, Brighton. July 9–11.

THURSDAY, JULY 10

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Architecture (2)." By L. O. Faraker. **12 noon.**

BRITISH MUSEUM, W.C.1. "Origins of Architecture—I. Greek," By Cecil Hallett, B.A., F.S.A. **12 noon.**

FRIDAY, JULY 11

THE ARCHITECTURAL ASSOCIATION, 36 Bedford Square, W.C.1. Annual Prize Giving and Exhibition of Students' Work. Prizes to be distributed by His Excellency the Swedish Minister, Baron Palmstierna. The Exhibition will be open daily from 10 a.m. to 6 p.m. until August 1. **3.30 p.m.**

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Annual River Trip. Visit to the West India Docks. The party will leave Westminster Pier at 2 p.m. Tickets 8s. 6d. (including tea). **2 p.m.**

SATURDAY, JULY 12

Sunrise, 4.56 a.m. Sunset, 9.14 p.m.

MONDAY, JULY 14

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Ironwork." By L. O. Faraker. **3 p.m.**

R.I.B.A., 9 Conduit Street, W.1. Executive Committee Meeting. **4 p.m.**

TUESDAY, JULY 15

TOWER OF LONDON, E.C.3. "The Tower in Norman Times." By Allen S. Walker. **11 a.m.**

WEDNESDAY, JULY 16

ARCHITECTURAL ASSOCIATION, 36 Bedford Square, W.C.1. Annual Excursion to Denmark and Sweden, returning to London on July 29. Particulars of the tour, etc., are obtainable from F. R. Yerbury, Secretary, Architectural Association.

INTERNATIONAL CONFERENCE of Union Internationale des Villes and Pouvoirs Locaux. At Liége. July 16–17.

THURSDAY, JULY 17

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Letchworth Garden City by motor coach, leaving Lancaster House at 1.30 p.m. Price of tickets, 5s. The First Garden City, Ltd., have invited the party to tea at the Institute, Letchworth. **1.30 p.m.**

FRIDAY, JULY 18

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Special Lecture at the R.I.B.A. Galleries, 9 Conduit Street, W.1, on "Modern Architecture of Europe and America." By Maurice E. Webb, D.S.O., M.C., F.R.I.B.A., and Howard Robertson, F.R.I.B.A., S.A.D.G. Chairman: Carmichael Thomas, Chairman of Council, The London Society **6.30 p.m.**

BRITISH STEELWORK ASSOCIATION. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "Skyscrapers in America." By G. E. J. Pistor. 5.30 p.m. (Tea will be served at 4.45 p.m.) **5.30 p.m.**

INTERNATIONAL CONFERENCE of Union Internationale des Villes and Pouvoirs Locaux. At Antwerp. July 18–19.

R.I.B.A., 9 Conduit Street, W.1. Finance and Housing Committee Meeting. **4.30 p.m.**

SATURDAY, JULY 19

Sunrise, 5.4 a.m. Sunset, 9.8 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Indian Section: "Architecture." By Miss M. Chamot. **3 p.m.**

MONDAY, JULY 21

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "English Seventeenth-Century Furniture." 3 p.m. Both lectures by L. O. Faraker. **12 noon.**

R.I.B.A., 9 Conduit Street, W.1. Council Meeting. **4.30 p.m.**

TUESDAY, JULY 22

TOWER OF LONDON, E.C.3. "The Tower in the Middle Ages." By Allen S. Walker. **11 a.m.**

WEDNESDAY, JULY 23

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the New Whitelands Training College, Putney Hill, S.W., designed by Sir Giles Gilbert Scott, who, with Lady Scott, will entertain members to tea after the visit. **3 p.m.**

THURSDAY, JULY 24

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Eighteenth-Century Furniture." By L. O. Faraker. **12 noon.** "Italian Furniture." By Miss M. Chamot. **7 p.m.**

BRITISH MUSEUM, W.C.1. "Origins of Architecture—II. Roman, etc." By Cecil Hallett, B.A., F.S.A. **12 noon.**

FRIDAY, JULY 25

R.I.B.A., 9 Conduit Street, W.1. Visit to U.S.A. Arrival of S.S. "Ascania" at Plymouth.

SATURDAY, JULY 26

Sunrise, 5.13 a.m. Sunset, 8.59 p.m.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. **Visits to Leeds Castle, Chilham or Bodiam, etc., organized by the Canterbury and Tunbridge Wells Chapters.** Particulars of the visits are obtainable from the Hon. Secretaries of the Chapters.

MONDAY, JULY 28

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Decoration." By Miss M. Chamot. **3 p.m.**

TUESDAY, JULY 29

TOWER OF LONDON, E.C.3. "The Tower in Tudor Times." By Allen S. Walker. **11 a.m.**

THURSDAY, JULY 31

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Alfred Stevens." By Miss M. Chamot. **3 p.m.**

LUTON TOWN HALL COMPETITION. Latest date for submission of designs.

DUDLEY SCHOOL COMPETITION. Latest date for submission of designs.

SOUTHPORT MARKET HALL COMPETITION. Latest date for submission of designs.

LIVERPOOL SCHOOL RESULTS

Following are the results of the examinations which have just been held in the Liverpool University School of Architecture. Students in the fifth year who obtain their Degree of B. Arch. (open to those who have matriculated) or Diploma in Architecture (open to students registered as Probationers, R.I.B.A.) are exempted from the R.I.B.A. Final Examination. All those who pass during the third year are exempted from the R.I.B.A. Intermediate Examination.

FACULTY OF ARTS, DEGREE OF B. ARCH.

FIFTH EXAMINATION

Honours in Architectural Design	*Honours in Architectural Construction*
Class I	*Class I*
Harper, D. R.	Hughes, J.
Holford, W. G.	*Ordinary Degree*
Stephenson, G.	Archer, Hilary
	Dawbarn, C. Y.
	Hutton, C. W.

FOURTH EXAMINATION

(*For Honours in Architectural Design*)	Nelson, J. O.
Harper, D. R.	Stephenson, G.
Harrison, E. J.	Worsnip, J. V.
Holford, W. G.	(*For Honours in Architectural Construction*)
Miles, Marjorie	Mitchell, T. N.

THIRD YEAR

Bell, G. P.	Littler, F. H.
Blair, W.	Meiring, A. L.
Coates, U. A.	Naudé, D. F. H.
Fidler, A. G. S.	Nayel, M. K.
Gearey, K. W.	Policansky, M.
Gonsall, H. E.	Rathmell, M.
el Hakeem, M. M.	Smith, R. V.
Hope, A. H.	Stammers, Constance
Horsburgh, E. R.	Thomson, W. K.
Hubbard, R. P. S.	Wilkinson, J. G.
Jones, D. M.	Wormald, E.
Lake, H. J.	

SECOND YEAR

Alcock, J. P.	Hollings, Phyllis G.
Alleyn, J. H.	Jensen, R. A.
Allsop, H. B.	Martinez, A. G.
Berwick, Kathleen R.	Mason, G. R.
Brown, J. H.	Norcliffe, H.
Coutts, G. A.	Rice, A. E.
Cowin, D. M.	Robson, H. S.
Edgar, J. C.	Ross, I. P.
Fletcher, Rosemary S.	Sharaby, A. G. H.
Goulding, G. E.	Tyson, P. S.
Griffith, W. A.	White, R. le R.
Holden, G. T.	

FIRST YEAR

Burnett, L. H.	Tipper, K. B.
Hinchcliffe, Kathleen	Williams, A.L.
Thearle, L. B.	

DIPLOMA IN ARCHITECTURE

FIFTH EXAMINATION

Distinction in Architectural Design	*Ordinary Diploma*
Kenyon, G.	Fairless, C. L.
Wright, J. H.	Morter, P. S. P.
	Owen, H.
	Woods, H. J.

FOURTH EXAMINATION

(*For Distinction in Architectural Design*)	Morter, P. S. P.
Banister, H.	Owen, H.
Fairhurst, R. F.	Parker, R. G.
Fairless, C. L.	Timmis, G. J.
Furbur, E. R.	Weerasinghe, O. F.
Hewitson, T. T.	(*For Distinction in Architectural Construction*)
Kelly, R. H.	Ormrod, F. J. M.
Kenyon, G.	Stirrup, G.

THIRD YEAR

Beckett, S. H.	McIntosh, Jean
Bennett, A. C.	Mayo, Mary I.
Berger, L.	Parkinson, J. L.
Copnall, S. L. W.	Peace, F. N.
Crighton, A.	Plews, C. E.
D'Alwis, H. T. S.	Rennie, H. G.
Davies, T. E.	Roberts, A.
Folkard, B. S.	Rogers, V. W.
Hernandez, L. M.	Smith, H. B. K.
Jackson, R. J. L.	Sydney, P. A.
Lazarus, J.	Wyatt, H.

SECOND YEAR

Baxter, J. R.	Mansel, J. W. M.
Bradley-Barker, R. B.	Miles, E. G. R.
Dixon, G. W.	Moffat, J. A.
Douglas-Jones, A.	Reakes, W. V.
Elfving, C. D.	Roberts, G.
Farrar, E.	Seddon, B.
Fawzi, A. H.	Sergent, W. H.
Fowler, H. S.	Twemlow, W. J.
Jones, J. G.	Vincent, H. J.
Kidd, J. W.	Walls, H. F.

FIRST YEAR

Bullen, A.	Gilling, M. G.
Clokey, T.	Gray, J.
Cummings, K.	Macdonald, A. E.
Dodd, D. M.	Montgomery, F. G.
Dufty, A. R.	Redfern, B. E.
Fraser, Elizabeth J.	Roberts, A. H.
Gibbons, R. F.	Timmis, G. C.

Following are the results of the Liverpool School of Architecture Scholarships and Prizes, 1929-30.

Lord Waring Travelling Scholarship in decoration, £50, open to all years, W. G. Holford, fifth year.

Holt Travelling Scholarship for design and measured drawings in the third year, £50, R. P. S. Hubbard.

Holland and Hannen and Cubitts Prize for working drawings, £10 each: fourth year, F. J. M. Ormrod; third year, A. Roberts; second year, J. R. Baxter.

John Rankin Prizes for sketch designs, £10 each: fourth year, T. T. Hewitson; third year, M. El Hakeem.

John Lewis Partnership Prize for furniture design in the fourth year, £10, T. T. Hewitson.

Gordon Selfridge Prize for design in the second year, £10, J. R. Baxter.

Anthony Minoprio Prize for the best set of rendered drawings in any year, £5, F. H. Littler, third year.

The Architects' Journal measured drawing prize for the second year, £5, A. G. Martinez.

COMPETITIONS OPEN

***July 31.*—The Luton Town Council invites architects to submit designs for the proposed town hall, which is to be built on the site of the old town hall, at an approximate cost of £250,000. Assessor: Sir Brumwell Thomas, F.R.I.B.A. Premiums: £500, £300, £200 and £100. Particulars may be obtained on application to W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s. Latest date for submission of designs: July 31.**

***July 31.*—The Dudley Education Authority invites architects having an office within a radius of fifteen miles of Dudley to submit competitive designs for a Council school to accommodate 320 children, to be erected on the Brewery Fields estate; also a school for 400 children on the Priory estate. Assessor: Herbert T. Buckland, F.R.I.B.A. Premiums: £150, £100, and £50. Applications for conditions of the competition, etc., should have been made to J. Whaley, Director of Education, Education Offices, St. James's Road, Dudley, by April 30. Deposit £1 1s. Latest date for submission of designs: July 31.**

July 31.—The Southport Borough Council invites local architects to submit designs for a new Market Hall. Assessor: Percy Worthington, F.R.I.B.A. Premiums: £100, £50, £35, and £20. The hall is to contain fifty-six stalls and a manager's office. The site is 191 ft. by 95 ft. The estimated cost is £13,500. Conditions may be obtained from the Town Clerk, Municipal Buildings, Southport. Latest date for submission of designs: July 31.

August 30.—The Carlisle Corporation invites British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. The site was previously occupied by the Prison. The total length of the frontage is approximately 358 ft. Assessor: Francis Jones, F.R.I.B.A. Premiums: £300, £200, and £100. Particulars of the competition, etc., may be obtained from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

September 1.—The Bangor (Co. Down) Borough Council invites architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor: Professor Patrick Abercrombie, F.R.I.B.A. Premiums: £150 and £50 for first and second places, respectively. Copies of the conditions and plans will be forwarded on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs: September 1.

September 30.—The Isle of Man Education Authority invites architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

No date.—The General Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums: £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2.

The R.I.B.A have issued the following notice in connection with the competition for the proposed pavilion, Menai Bridge: The Competition Committee call the attention of members to the fact that the conditions of the competition are not in accordance with the Regulations of the R.I.B.A. The Competitons Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime, members should not take part in the competition.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

The Streatham Astoria (pages 43–46). General contractors, Griggs and Son. Sub-contractors: London Brick Co. and Forders, Ltd., Fletton bricks and roof tiling; Wiggins, Sankey & Co., Ltd., facing bricks; Ragusa Asphalte Paving Co., Ltd., asphalt; Stuart's Granolithic Co., Ltd., artificial stonework; Asbestos Cement Building Products, Ltd., asbestos roof tiling; F. Knight & Co., ironmongery; J. W. Gray & Co., lightning conductors; Morris, Singer & Co., steel sashes and windows; Williams and Williams, Ltd., lantern lights, laylights and patent glazing; H. H. Martyn & Co., Ltd., and J. Starkie Gardner & Co., Ltd., ornamental metal handrails, grills and balustrades; F. A. Norris & Co., wrought-iron staircases; Ed. Wood & Co., Ltd., constructional steelwork; British Reinforced Concrete Engineering Co., Ltd., steel reinforcement; Carrier Engineering Co., Ltd., heating and ventilation; J. Starkie Gardner & Co., Ltd., canopy; Berkeley Electrical Engineering Co., electrical installation; Hoffmann Sprinkler Co., Ltd., fire hydrants and appliances; Sturtevant Engineering Co., Ltd., vacuum cleaning plant; Gimson & Co. (Leicester), Ltd., counter weighting and stage equipment; Wiggins, Sankey & Co., sanitary fittings; Hampton and Sons, fibrous plaster; Marc-Henri and Laverdet, decoration; Cope & Co., wall tiling; A. Goldstein & Co., glazing; Ed. Evans and Son, terralith paving; Automaticket, Ltd., automatic ticket machines; John Compton Organ Co., Ltd., organ; Portland Cement Selling and Distributing Corporation, Portland cement; J. Frank Brockliss, Ltd., projection room equipment; Western Electric Co., Ltd., talking apparatus; Jackson Boilers, Ltd., kitchen equipment; F. Burkitt, fire curtain; Hollow Steel Floor Co., Ltd., balcony floor; Brookes, Ltd., vitreous mosaic paving; Haywards, Ltd., metal railings and pavement lights; Lumley & Co., soda fountain.

No. 25 Montpelier Road, S.W. (page 47). General contractors, William Mills and Sons, Greenwich. Sub-contractors: Lawford & Co., asphalt; Bloxham and Scuttells, structural steel; National Flooring Co., wood-block flooring; Z. D. Berry and Sons, central heating; Francis Polden, Ltd., electric wiring; Shanks & Co., Ltd., sanitary fittings; Nettleford and Sons, Ltd., door furniture; Crittall Manufacturing Co., casements; Carter & Co., Ltd., tiling.

Dudley Public Building (pages 48–50). General contractors, John Dallow and Sons. John R. Newton, clerk of works. Sub-contractors: Blockley's, Ltd., bricks (front facings); David French & Co., masons; Harvey and Ashby, wrought-iron casements and leaded lights; W. J. Bloye, fibrous plaster modelling and stone carving; Birmingham Guild, Ltd., wrought-iron gates and railings; John P. White and Sons, Ltd., oak fittings and panelling to Sessions Court and Coroner's Court; May Construction Co., Ltd., acoustic tiling; G. N. Haden and Sons, Ltd., heating and hot-water service; G. G. Walker & Co., electric lighting; British Thomson Houston Co., projectors, lighting fittings; Osler and Faraday, Ltd., electric light fittings; Chamberlain, King and Jones, general furnishings; Synchronome Co., Ltd., clocks; Sturtevant Engineering Co., Ltd., vacuum cleaning plant; W. W. Turner & Co., Ltd., gallery seating; Benham and Sons, Ltd., cooking apparatus; Kleine Patent Fire Resisting Flooring Syndicate, Ltd., flooring; Empire Stone Co., Ltd., stone paving and staircase.

TRADE NOTES

At the invitation of the Cement Marketing Company, Ltd., a party of nearly a hundred architects and civil engineers recently visited the Kent works of the Associated Portland Cement Manufacturers, Ltd., at Stone. Interest was added by taking the river route to the works from Westminster Pier. On disembarking at the loading jetty of the works, the party were provided with voluminous white smocks and check caps. At this jetty the raw materials are unloaded, and also the finished products are dispatched. Ships up to 3,000 tons capacity can be berthed.

Evidence of the magnitude of the undertaking was provided by the ten huge storage silos. These hold 1,750 tons of cement each. From here the party passed to the boiler-house and generating station, from whence electric power is supplied to the whole of the plant. They then inspected the slurry-mixing and storage tanks, of which there are five: one for clay slurry, four for cement slurry. The total capacity of these is 2,500 tons. A light railway and numerous conveyors transport the materials on their way to the various operations.

The first part of the manufacture takes place at the wash mill, where chalk and clay are mixed with water to form cement slurry. From here the slurry passes to the separating plant and the tube mills. The raw liquid is passed by pumps to the kilns, where, by means of coal-dust under pressure and heated air, it is converted into "clinker" at the rate of 600 tons per day. Four tube mills, 36 feet long and 6 feet in diameter, are used to grind the clinker to produce the finished product. A thousand horse-power is required to drive these mills alone, which gives some idea of the power required throughout the works.

Finally, visitors inspected a series of coloured exhibits, showing the diversity of uses to which concrete might be put, and giving a conception of the architecture of tomorrow.

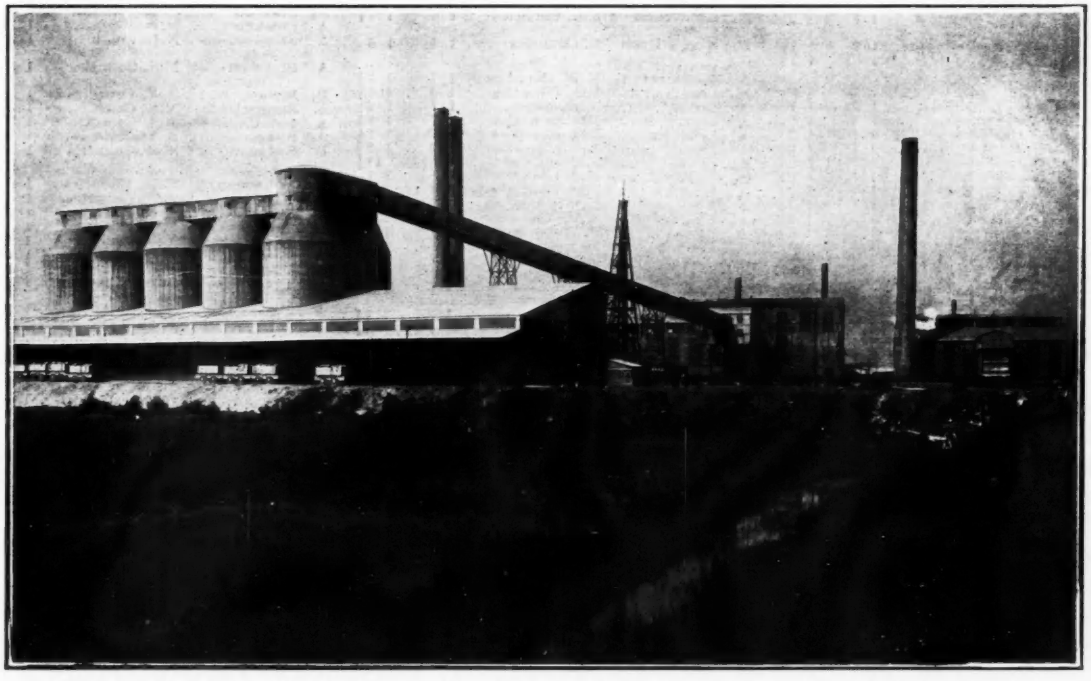
S. W. B.

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Prior to the erection of the new P.L.A. floating landing-stage at Tilbury, opened recently by the Prime Minister, passengers had to proceed to and from their vessels by means of tenders or proceed to the docks to join or leave the boats. This new landing stage furnishes such facilities for the landing of ships' passengers that it now places Tilbury on a level with other ports which in the past have proved more popular than London to ocean travellers. The largest vessels using the port can berth at any level of the tide and at any hour of the day or night. The new floating stage consists of a platform 1,142 ft. long by 80 ft. wide, constructed of heavy steel girders with a timber deck. It projects some 370 ft. into the river, and was designed by Mr. F. Palmer, C.I.E., consulting engineer to the P.L.A. The lighting is likely to prove one of the most important factors in the success of the new landing stage, permitting, as it does, all-night activities. The scheme was evolved as a result of collaboration between the Electrical Department of the P.L.A. and the Illuminating Engineering Department of the G.E.C. Another particularly interesting lighting installation is at Ipswich. Here street lighting by means of Wembley lanterns and 300-watt Osram lamps has been adopted in the main thoroughfares. The installation is somewhat unusual in that the lighting units are fitted to the trackless tramcar trolley standards. By employing an anti-vibratory device it has been found that this practice is an excellent one by which to secure adequate illumination of the town's principal thoroughfares without recourse to erecting special lighting standards. The trackless trolley standards are spaced some 120 ft. apart, and with the lanterns mounted at a height of about 20 ft. it has been found that the illumination is ample from every point of view. The installation embraces St. Matthew's, Westgate, Tavern and Carr Streets, and was carried out by the Ipswich Corporation Electrical Department.

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Building and Lighting is the title of a new series of advice bulletins, the first of which has just been issued by Messrs. Philips Lamps, Ltd. Light, whether natural or artificial, is indispensable to architectural form. Surely, therefore, it is stated, the ideal state of affairs would be for the architect to be fully conversant with the science of illumination, so that he need not consult a lighting specialist, and so that he may design the building in full recognition of all the possibilities of modern illumination. These and other ideas have led Messrs. Philips Lamps, Ltd., to issue this publication. The firm's object is to bring these comparatively simple technical problems within the direct province of the architect, so that in whatever way they are solved, he will handle them as part of his work, and they hope to bring to his notice any advances which may be made in the unexplored province of "light."



The works of the Associated Portland Cement Manufacturers, Ltd., at Stone, Kent, a visit to which is described above.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 8½	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_1	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_2	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_2	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6

FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6
TRIMMING earth to slopes, per yd. sup. 0 0 6
HACKING up old grano. or similar paving, per yd. sup. 0 1 3
PLANKING to excavations, per ft. sup. 0 0 5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.
IF left in, add to above prices, per ft. cube . 0 2 0

HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6

DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.

LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. 6 *in., per ft.*	0	1	3
DO. 9 *in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. 6 *in., per yd.*	0	8	0

Portland cement and sand, see "Excavator" above.

Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., Per roll	0	2	6
DO. 9 *in. per roll*	0	4	9
DO. 14 *in. per roll*	0	7	6
DO. 18 *in. per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. per hour; SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super.	0	11	0
York templates sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube	£0	2	2

DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies	£14	0	0
Countess	23	0	0
Duchess	32	10	0

Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms, per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2

Cement and sand, see "Excavator," etc., above.

Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0

Green randoms	6	7	0
Grey-green do.	5	9	0
Green peggies 12 in. to 8 in. long	4	13	6
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6

Vertical Tiling, including pointing, add 18s. 0d. per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq.	£1	4	6
DO. *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	4
DO. *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube 0 4 6
DO. framed in floors, roofs, etc., per ft. cube 0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube 0 8 6
PITCH PINE, add 33⅓ per cent.
FIXING only boarding in floors, roofs, etc., per sq. 0 13 6
SARKING FELT laid, 1-ply, per yd. 0 1 6
DO., 3-ply, per yd. 0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq. 2 0 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run 0 0 4½
DO. 9 in. wide and over, per ft. sup. 0 1 2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1½ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1⅛ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1⅛ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1⅛ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1⅛ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1⅛ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.* 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ⅝ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1½ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	6	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ⅝ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ⅛ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* "	0	2	3
DO. *6 ft. sup.* "	0	2	6
DO. *20 ft. sup.* "	0	3	1
DO. *45 ft. sup.* "	0	3	3
DO. *65 ft. sup.* "	0	3	5
DO. *100 ft. sup.* "	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 *ft.* sup.).			
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

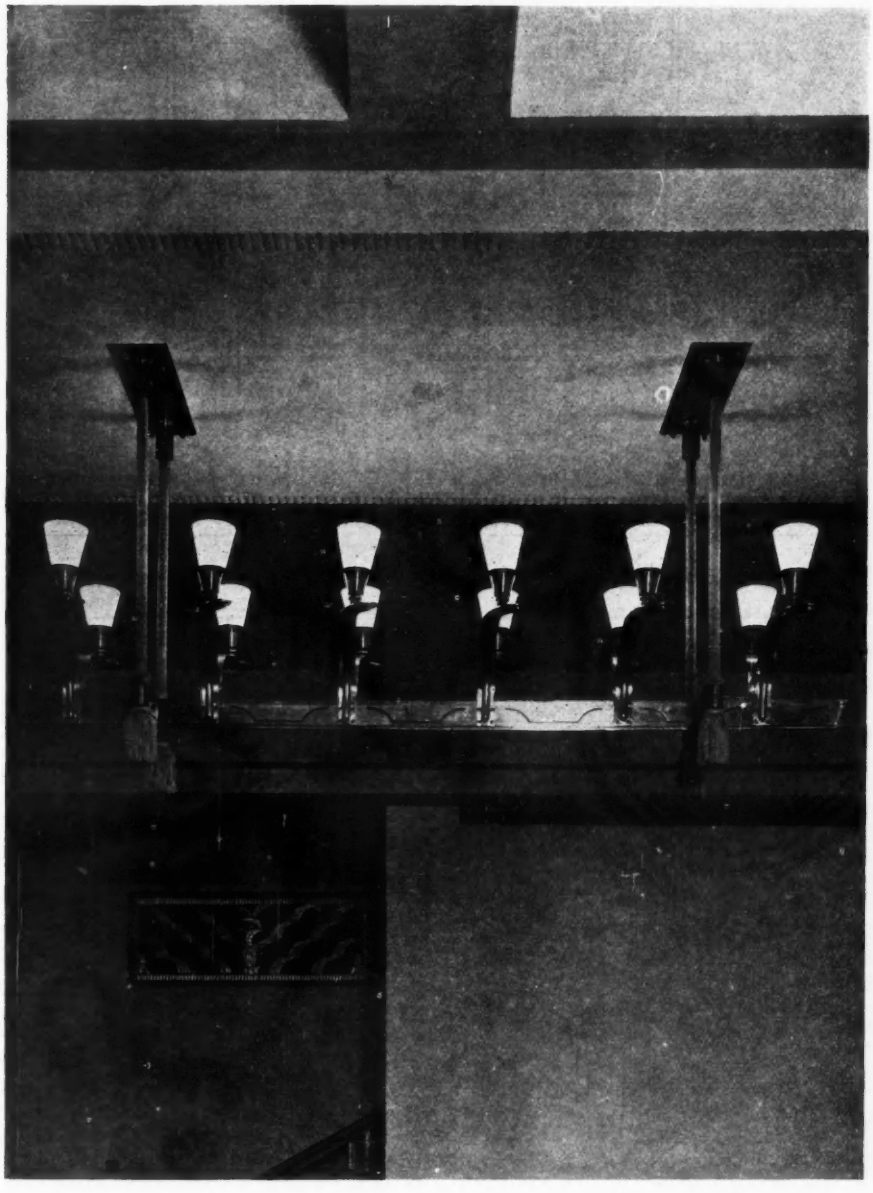
Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . . from 3*d.* to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¼ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	3	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1	0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1	3	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1	0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—	—

SCALE DETAILS:

A WEEKLY SERIES

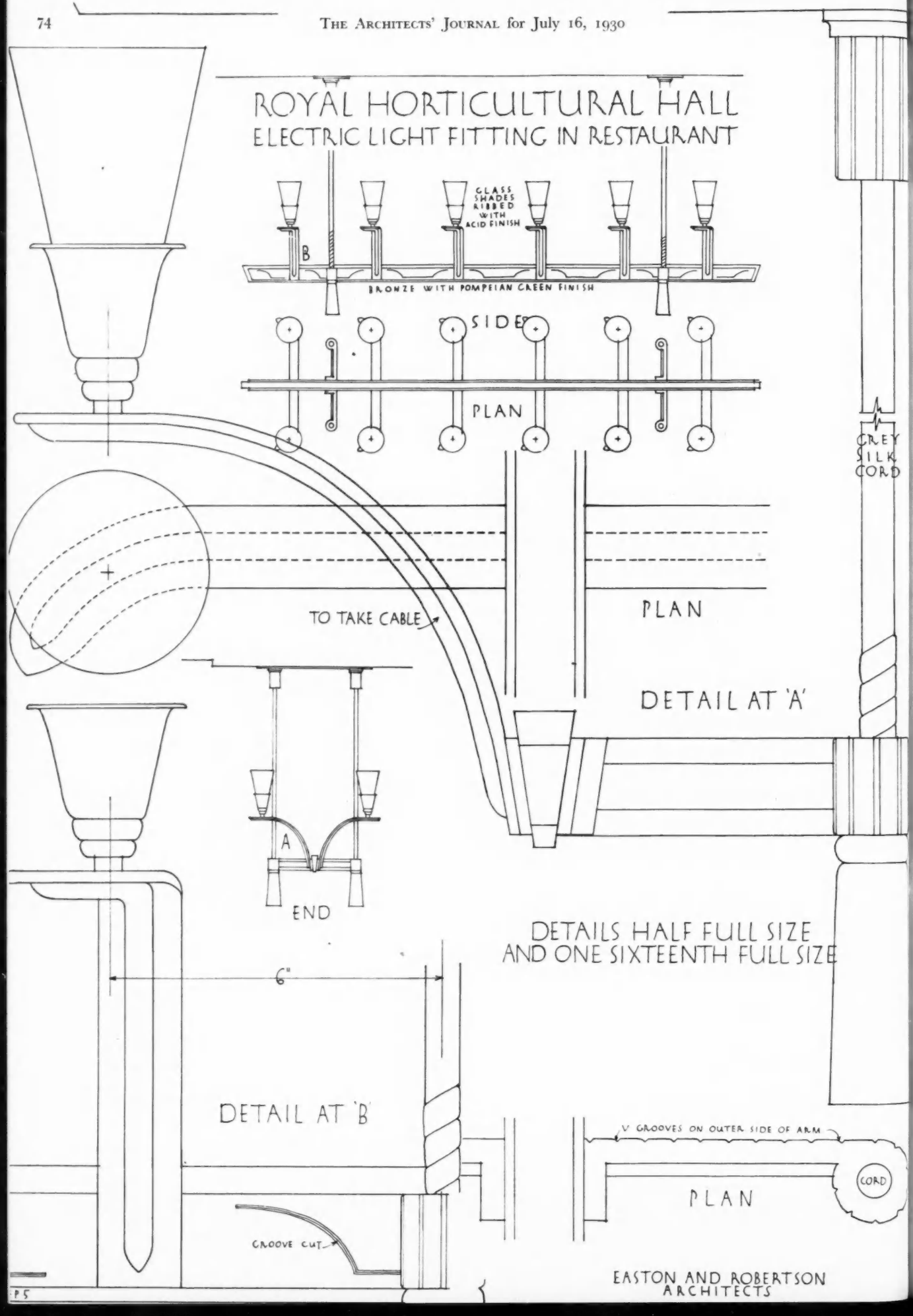


LIGHT FITTING IN THE RESTAURANT, ROYAL HORTICULTURAL HALL, LONDON
DESIGNED BY EASTON AND ROBERTSON

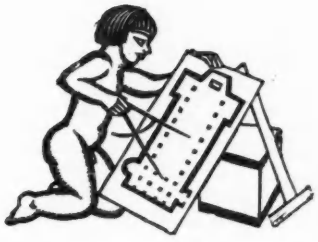
THIS fitting consists in principle of a main horizontal member from which branch twelve arms carrying goblet-shaped opal glass bowls, to conceal the lamps themselves. It is of bronze, finished in Pompeian green, and is supported by four stout silver silk cords fixed to bronze rectangular ceiling plates.

The incised decoration on the sides of the principal member suggests leaf shapes—in fact the whole design has a very definite character in tune with natural plant forms. The architects have had the foresight to provide swellings in the arms, which contain the electric cables feeding the lamps effectively and invisibly.

The drawing overleaf may be read with architect's scales—6ins.; and ¾in.=1ft.


ROYAL HORTICULTURAL HALL
ELECTRIC LIGHT FITTING IN RESTAURANT
GLASS SHADES RIBBED WITH ACID FINISH
B
BRONZE WITH POMPEIAN GREEN FINISH
SIDE
PLAN
GREY SILK CORD
TO TAKE CABLE
PLAN
DETAIL AT 'A'
A
END
DETAILS HALF FULL SIZE
AND ONE SIXTEENTH FULL SIZE
6"
DETAIL AT 'B'
V GROOVES ON OUTER SIDE OF ARM
CORD
PLAN
GROOVE CUT
PS
EASTON AND ROBERTSON
ARCHITECTS

THE ARCHITECTS' JOURNAL



WEDNESDAY, JULY 16, 1930

IN THESE LEAN YEARS

" As architects . . . . we are anxious that each town hall, civic building and planning scheme is done as well as contemporary talent can do it . . . that the system of public competition will constantly select the best."

IT will be remembered by historians of the future as a curious historical fact that the lean years succeeding the Great War saw not only the building of the million houses that were needed to make good the arrears of the war period, but a greater mass of municipal building than had ever arisen before. It will have been discovered that the arrears were by no means confined to houses, and that much of the municipal rebuilding was work held up for five years; but round and about the year 1930, it will have been noticed, an unprecedented glut of bricks and mortar coincided with a financial and industrial depression remembered long after as a crisis which the nation barely survived, suffering as it then was by the secession from the Empire of some of its greatest possessions and markets.

This year, 1930 through which we now move, is indeed heavy with events and portents. We do not know clearly whether we are bankrupts returning to solvency, or good men on the road to ruin; and when we look about us and see unemployment all round, stagnation within and fierce competition without, we have moments of fear and of trembling. " Is this the time," we ask, " for such municipal extravagance ? Is this the time for towns whose inhabitants cannot afford the rents of council houses; when the rates of good business property are so behindhand that payment can hardly be pressed for fear of collapse all round; when industry wanes and idleness waxes ; is this the time to spend hundreds of thousands on town halls and offices, new streets and civic centres? "

It is a question not to be answered out of hand, for the Government sees it as being one means of spending money and so keeping men employed; and perhaps the Government says to itself that there are many ways of spending money. There are roads and railways, electrification and drainage—and there is also the erection of buildings in good bricks and lasting mortar, worth so much today and not too much less in days to come.

And also perhaps there may be something in the notion that when business is slack the time has come to reorganize the office and straighten things up. Goodness knows that most English towns are in need of straightening and rebuilding—the last places for depressed men to live in.

We can hardly blame a town such as Derby, when, in response to an invitation by the Government to say just how it could usefully spend some money, it answers by drawing up a great scheme of central civic improvements. And who is to say that the money is not very well spent, provided that the improvements are of a quality likely to increase the attractions and prestige of an otherwise gloomy spot ?

For ourselves, we would say that in the midst of an enormous outpouring of money for relief and maintenance of unemployed, and for many works the value of which is hard to find, we see this building as something fairly concrete and useful. As architects, it concerns us still further that it should be something much more than building for building's sake, as so much relief work is apt to be, and we are anxious that each town hall, civic building and planning scheme is done as well as contemporary talent can do it.

With this in view it is our hope that the system of public competition will constantly select the best that can be got, so that in the end, when it becomes a matter of looking back on these times, it may be said that money poured freely in those lean years, but left a fine legacy of good building.



STOCKHOLM EXHIBITION, 1930. THE MAIN RESTAURANT.

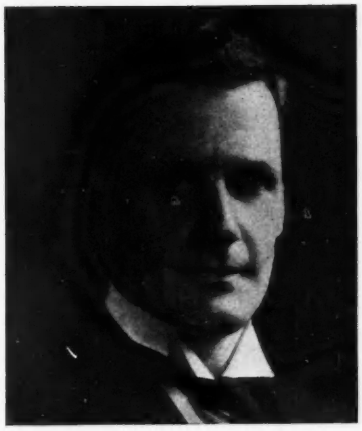
An epitome of the architectural philosophy that has resulted here in many remarkable "functional" buildings by E. G. Asplund, architect of Stockholm's circular library and chief architect to the Exhibition.

Tiers of variegated sunblinds and their shadows play an important part in this composition, their form being emphasized by the lettering, so admirably chosen to co-operate with the sunblind supports and balcony rails as a foil to the huge plate-glass walls of the restaurant.

This remarkable building will surely help many waverers to appreciate the beauty in modernist architecture.

Further illustrations of the Exhibition appear on pages 82–86.

NEWS & TOPICS



Thomas Pierson Frank, who, in his forty-fifth year, has been appointed to succeed Sir George Humphreys, Chief Engineer of the London County Council, on his retirement, next November. Mr. Frank is City Engineer of Liverpool, and previously held similar appointments at Huddersfield, his native town, Plymouth, Cardiff and elsewhere.

ARCHITECTURAL CRITICISM

THE brilliant quarterly review called *The Century*, published in New York, has some severe comments to make on the dearth of architectural criticism; but we in this country have also reason to take the editorial words to heart. Is it true that here also critics of buildings are apt to be cowards and pay too great deference to the God of Commerce? In America it is complained that if there is any approach to æsthetic discussion at all it is almost invariably favourable. In particular the new skyscrapers are too much praised, although ninety per cent. of them are in some way " botched." According to *The Century*, nearly every skyscraper put up today is designed with the purpose of securing a maximum rental out of a given plot of ground. Hence the building is limited in height and controlled in design almost wholly by considerations of profit, engineering difficulties and building laws. So much has been said about the interesting forms which have resulted from the operation of the zoning laws that the naked truth about this matter is somewhat disconcerting. The buildings are set back where the law demands and not set back where it does not. The result is a series of lopsided monstrosities and proportions dictated by legal rather than by æsthetic canons.

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Obviously it would be unjust if a critic were to blame the architect for the lack of symmetry in a building, when this defect is due to economic circumstances. The task of constructive criticism in such an instance is to direct public attention to the baneful effect of the building regulations themselves, and to suggest their amendment in such a manner that they take account of architectural factors. Where, however, the artistic faults of a building, whatever they be, can justly be attributed to the architect himself, it is the function of criticism to announce this fact fearlessly. It will be remembered that four years ago we issued a *questionnaire* to our readers, inviting them to give their views on this particular subject, and that there was a general consensus of opinion in favour of candid criticism of new buildings. It is just a question of the terms in which the comments are couched. Criticism that is at the same time courteous and based upon a reputable standard of æsthetic judgment is not resented by members of the profession.

LONDON'S NEW CHIEF ENGINEER

Thomas Pierson Frank, M.INST.C.E., F.S.I., was last week appointed Chief Engineer to the L.C.C. in succession to Sir George Humphreys. Mr. Frank comes to London from Liverpool, where he took over from Mr. Brodie, who will long be remembered as the maker of fine roads. Here Mr. Frank will be faced with one of the toughest problems ever presented to an incoming official, for the committee that started its labours last Thursday, if they emerge from them successful, will have achieved the more than human.

THE INDUSTRIAL SOUTH

The growth of the industrial south is one of the remarkable things of modern times. During the last five years out of 77,667 new factories established in the Midlands and South of England more than 40,000 are in the south, in and about London, Essex, Middlesex, Oxford, north of the Thames and elsewhere. Places like Slough are growing into towns with large populations and all the terrible signs of pig-headed industrialism; while north of London at Hayes, Southall, and fanwise round the northern suburbs are springing up miles of new factories. Even the Great West Road, planned to be one of the entrances of London, has, in places, the look of a motor track leading to an absolute fun-fair of comic factories. It is as though London were now the absolutely irresistible magnet for all the money in the country.

THE CUSTOM HOUSE TO GO

It is announced that the Custom House in Lower Thames Street is likely to be given up before long, so that the site may be occupied by an extension eastward of Billingsgate Fish Market. For some time past the building, large as it is, has proved inadequate for the staff who have to deal with the business of the largest port in the world, and on a new site elsewhere a new and much larger building is to be built. The Custom House was originally built by David Laing, a pupil of Sir John Soane, and is a rather lifeless work of a heavy if very dignified period of English architecture. The long room that occupies a great deal of the ground floor space was later reconstructed by Smirke. It is to be hoped that as much information as possible will be obtained, by measurement and photography, of what is good in the design before it vanishes, like so much of classic London, into the limbo of things forgotten.

NEW VENICE

During the last few years (writes a correspondent in sending me the accompanying snapshot) a new Venice has grown up on the Isola di S. Elena. It is essentially modern, though it contains no buildings which can be compared with recent work in Paris, Berlin or Vienna. By introducing traditional Venetian features, such as chimney-stacks and windows, the new buildings have been kept in harmony with those in the older part of the city. The general layout is far from formal. Indeed, the impression given is of an almost haphazard arrangement of streets and squares. At the centre is a triangular-shaped public garden, from which streets radiate to the outer circle of houses. Between these latter and the shore of the lagoon extends a wide belt of tree-planted grass. This space is unenclosed and forms an ideal children's playground. Most of the houses are divided into flats, and the ground floors of many are occupied by shops and cafés. Brick is the building material used, the roofs being tiled, and the floors formed of pre-cast hollow concrete beams. Externally, walls are cement-

rendered and colour-washed in all shades of cream, red and yellow. There are no canals, but concrete-paved streets without footways. As yet, pedestrians are safe from wheeled traffic. The Duce's plans for a road bridge connecting Venice with the mainland is complete, but is strongly opposed by the citizens.

THE LEANING TOWER OF PISA

It is just three years (writes a correspondent in Italy) since a Commission was appointed by the Italian Government to enquire into the question of the stability of the famous Tower of Pisa. The Commission, after making an exhaustive study of the site and taking numerous observations to discover the causes which have led to the increasing inclination of the tower, has now sent in its report to the Minister concerned, accompanying it with an album of photographs showing different experiments that have been undertaken. Certain works of underpinning and strengthening are stated to be absolutely essential to protect the structure and to arrest any further increase in the lean of the tower. There is no immediate danger of a collapse, but the works must not be unduly delayed. The total cost of the necessary repairs and other works is estimated at a sum not exceeding twenty millions of liras, say, £220,000 sterling (he concludes. It is a vast sum !); and the Minister is putting the matter before the Head of the Government, Signor Mussolini, with a view to the provision of the necessary funds.

A POST FOR AN ARCHITECT-GARDENER

An exceptional post is advertised on page xxxii of this issue. A firm of landscape gardeners and nurserymen has realized the truth of a matter I advocated as long ago as last February, namely, that the planning of public and private parks is in need of stimulus from the architect. Accordingly this firm is seeking applicants for the post of head designer from men with education, social experience, and a knowledge of architectural principles. And there should be many applicants of the right type, trained in abstract design, i.e. to co-operate with the universe in the production of beauty. Architects already have been called to shipbuilding and the arranging of theatre scenery, and are recovering bridges and factories from that born poacher, the engineer.

IS THERE A FUTURIST GARDEN?

The squires of the last three centuries are the ancestors of landscape design. They not only bred dogs, horses and pheasants and cows—they bred beauty in these beasts to adorn the English landscape. They were forever replanning their estates with woodlands, groups of trees on hill and artificial mound, lakes and watercourses, parks and cornfields. Kingsley's eurt line, "There's blood on your foreign shrubs, squire," is but one of the many expletives which show the importance of the class against which it was hurled. But not only for the traditionalist but for the modernist the expert must design. It is in the latter process he will get his fun (or his despair). Who knows but what flower beds on a mechanistic plan may help to naturalize mechanics? But may heaven shield us from mechanical flowers and trees.

PRIZE DISTRIBUTION AT THE A.A.

On Friday last, July 11, the Architectural Association terminated the school year with the presentation of prizes and scholarships. The awards were distributed by His Excellency Baron Palmstierna, the Swedish Minister in London. This was peculiarly fitting in view of the A.A.'s approaching visit to Sweden, where the Exhibition of Decorative Art is attracting the attention of Europe. Incidentally, those who are unable to attend the visit will find at the A.A. a show of photographs taken recently at the exhibition by Mr. Yerbury. In welcoming His Excellency, the President, Mr. Grey Wornum, spoke of the honour conferred upon the A.A. by his presence, and said that it was one more proof of the affection subsisting between the two countries. Speaking of the school, he referred to the change that took place at the beginning of the session, when Mr. Howard Robertson relinquished the sole charge of the school and two practising architects were appointed to help him. The council thought the experiment justified in every way.



The new Venice: a view of recent buildings erected on the Isola di S. Elena, which is as yet unconnected by bridge.

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Baron Palmstierna had some wise words to say to young architects. He told them to let their imaginations take flight without, however, forgetting traditional ways. Let their work be national. Let them, as architects, lead the building trade, and let them also join hands with painters and sculptors, so that the three arts might benefit by their mutual support. Mr. Robertson, in proposing a vote of thanks, said he was struck with His Excellency's remarks. They should pay regard to tradition, but they must invent. Architecture must be modern, and it was the policy of the school so to arrange the curriculum as to combine the good qualities of past, present and future. ASTRAGAL

Charing Cross Bridge Scheme Committee

The following is a complete list of the names of the persons who have accepted appointment on the Charing Cross Bridge Scheme Advisory Committee and of the authorities or societies they represent:

Chairman—Sir Leslie Scott, K.C.

Sir Giles Gilbert Scott, R.A., Royal Fine Art Commission; Sir Reginald Blomfield, R.A., Royal Academy of Arts; Dr. Raymond Unwin, F.R.I.B.A., R.I.B.A.; Mr. William Wylie Grierson and Mr. Ernest Frederic Crosbie Trench, Institution of Civil Engineers; Mr. Dendy Watney, Surveyors' Institution; Mr. F. Longstreth Thompson, Town Planning Institute; Mr. L. Silkin and Sir Percy Simmons, London County Council; Captain J. F. C. Bennett (Mayor), Westminster City Council; Mr. George Brittain, Lambeth Metropolitan Borough Council; Brig.-Gen. the Hon. Everard Baring and Sir Herbert A. Walker, Southern Railway Co.; Mr. Frank Pick, Underground Electric Railway Co.; Mr. C. F. Leach (vice-chairman of the Authority), Port of London Authority.

The L.C.C. Improvements Committee also recommend that Captain G. S. C. Swinton be appointed a member of the committee.

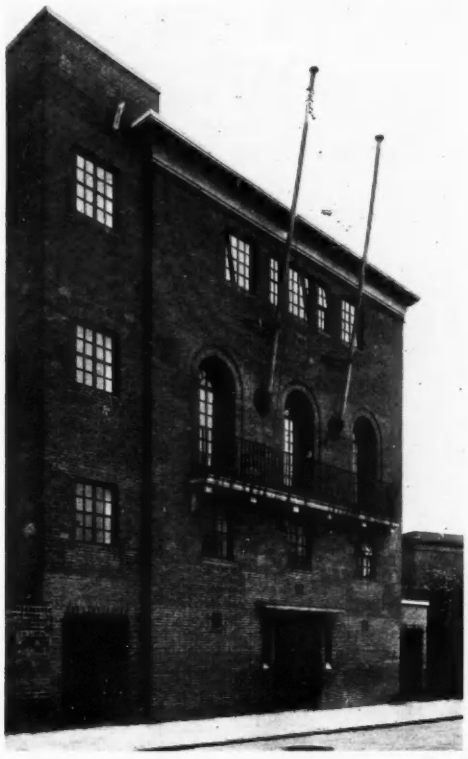
KINGSLEY HALL, BOW

DESIGNED BY C. COWLES-VOYSEY

KINGSLEY HALL was built as a settlement for social work in Bow. It was required that the building should be adaptable for many different purposes and that the site, somewhat restricted for the provision of the accommodation required, should be fully utilized. The site is a rectangle, with a frontage of 50 ft. to Powis Road and a depth of 80 ft. The ground floor is occupied by the assembly hall, an entrance vestibule, a sanctuary, or rest room, and a classroom.

Owing to the restricted height of the assembly hall and the conflicting nature of the requirements it was not thought possible to obtain an ecclesiastical character. The treatment and decoration of the hall therefore are of a restrained and simple character. Provision is made for the installation of a small organ.

The sanctuary, or rest room, adjoins the entrance. It is finished in the same materials as the hall (see page 81) and is always open for public use.



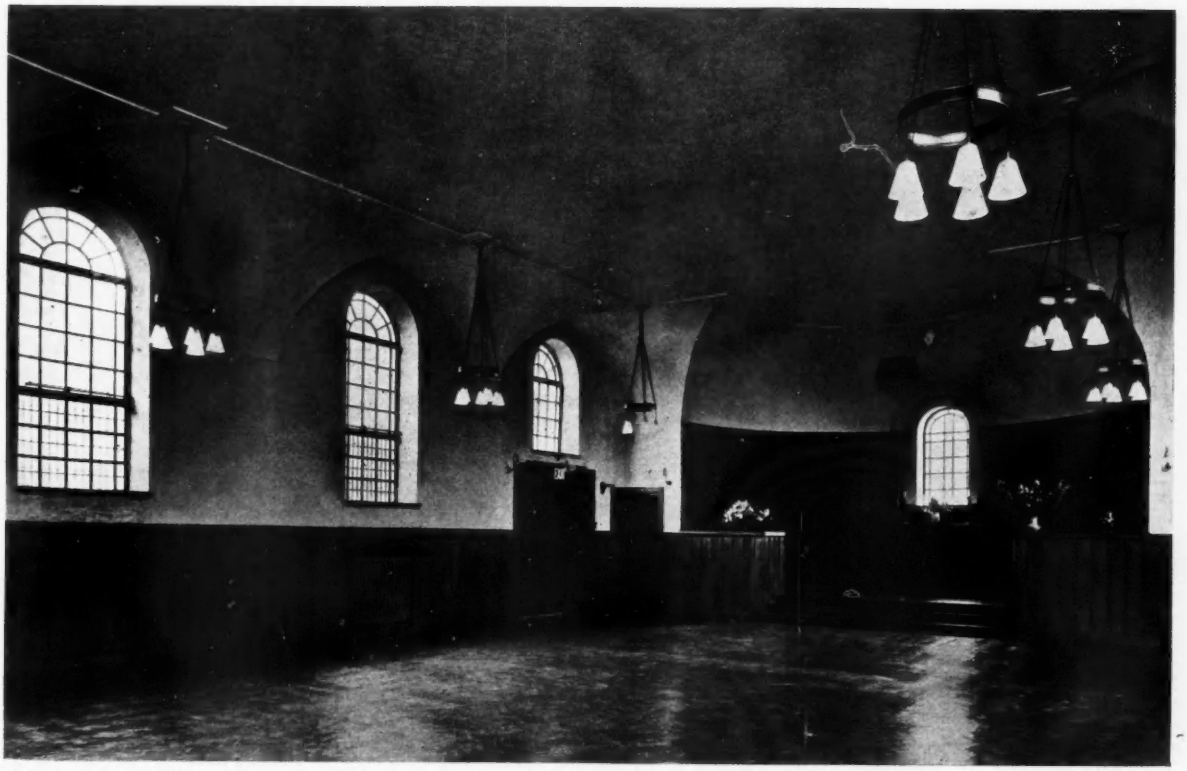
The elevation to Powis Road. The building has been erected as a settlement for social work in the district.

The classroom has independent access and was designed for use as a platform retiring room in connection with the hall, and for Sunday school purposes.

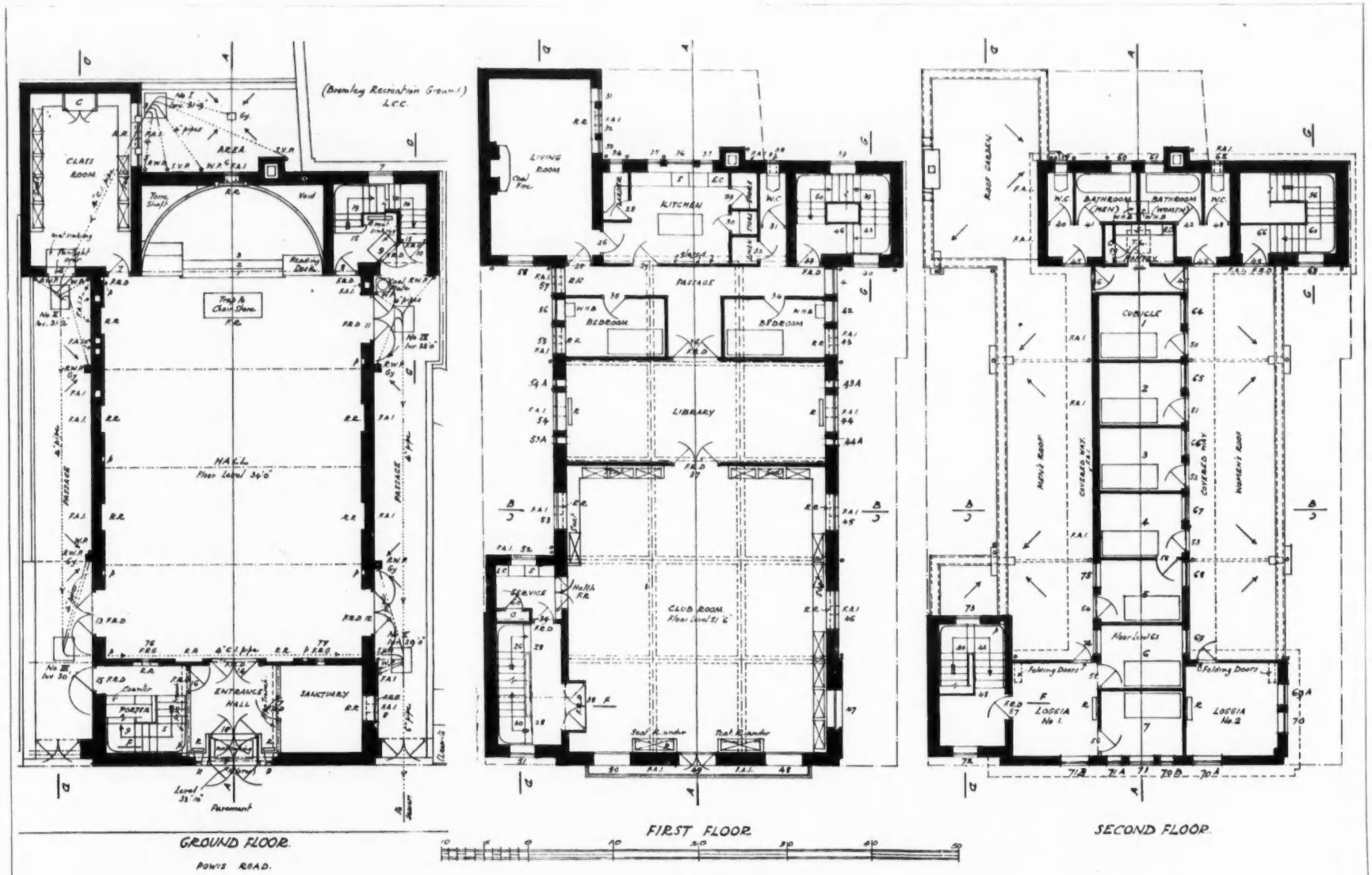
In the basement are the organ motor room, chair store, boiler house, meters and switch rooms. Lavatories in connection with the assembly hall are placed on a mezzanine floor.

On the first floor is a club room for general use by the boys' clubs and other groups. Adjoining is a refreshment buffet. On this floor also are the library and a self-contained flat for the settlement workers. Above this are a roof-garden and further living accommodation.

The exterior of the building is faced with 2-in. Dutch sand-faced bricks with a base of 2-in. Staffordshire blue bricks, the cornice and balcony being in concrete faced with white cement. The structure is of fire-resisting construction, and the finish generally is of a bright and cheerful character, designed to be permanent and clean.



The assembly hall, excluding the platform, is 40 ft. 6 ins. long by 30 ft. wide. It has been designed as a "multi-purpose" hall, which is to be used for religious purposes on Sundays. Seating accommodation is provided for 250 persons.

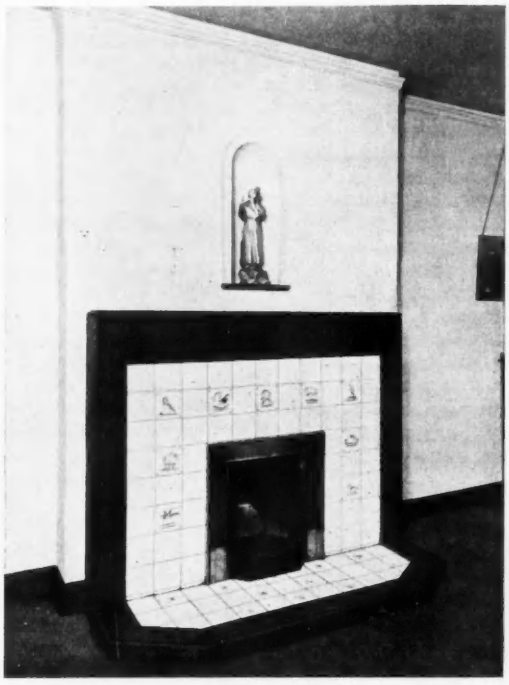


Kingsley Hall, Bow.] [*By C. Cowles-Voysey.*

Ground, first and second-floor plans. Between the ground and first floor is a mezzanine floor containing the upper part of the assembly hall, and men's and women's lavatory accommodation. On the ground floor to the left of the assembly hall, at the platform end, is another exit, not shown on the plan, similar to that on the right. The right-hand bedroom on the second floor beyond the library has been converted into a handicraft room.



The fountain in the roof garden masks a chimney-stack.



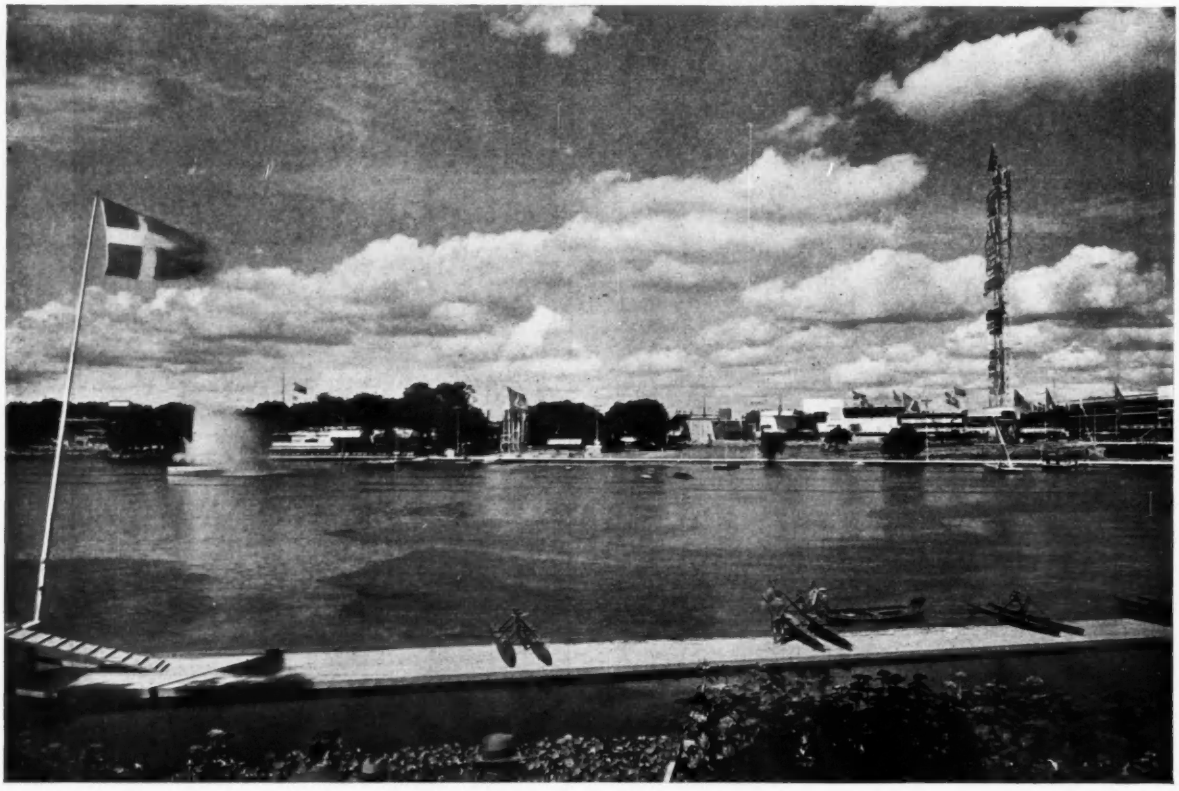
Fireplace, with white and painted tiles, in living-room.



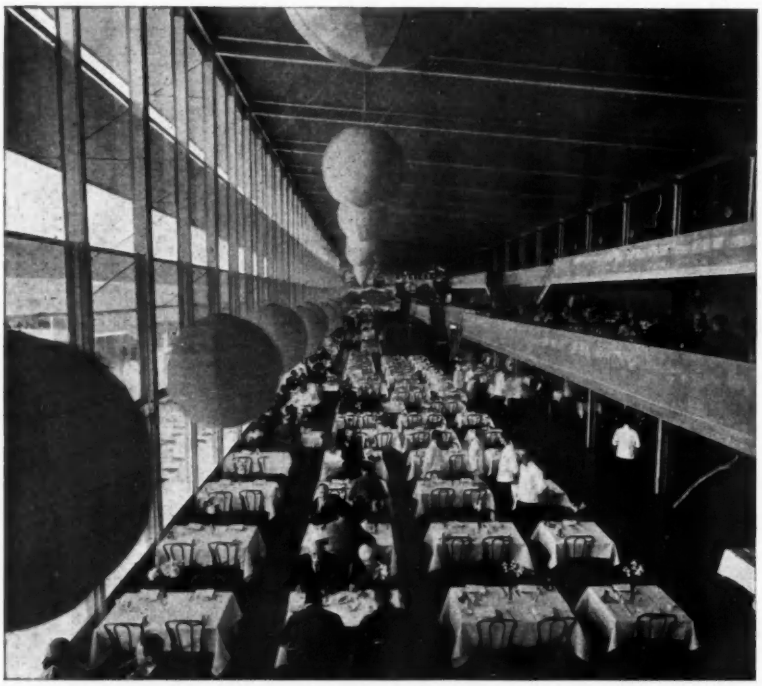
Kingsley Hall, Bow.] [*By C. Cowles-Voysey.*

The platform in the assembly hall. The panelling is of oak, grey in tone, and the upper parts of the walls and the ceiling are in rough textured acoustic plaster, finished with a wood float, and washed a warm ochre colour.

On the ground floor to the left of the assembly hall, at the platform end, is another exit, not shown on the plan, similar to that on the right. The right-hand bedroom on the second floor beyond the library has been converted into a handicraft room.



A general view, taken from Djurgården on the other side of the bridge. The vast Advertising Mast is thrown into great relief, as the only prominent vertical in a mainly horizontal composition. On the left is the raft-fountain.



Interior of Restaurant. The use of spherical lights in rows breaks the monotony and yet emphasizes the horizontality of the whole. Note the reflective surfaces of the balconies.

STOCKHOLM

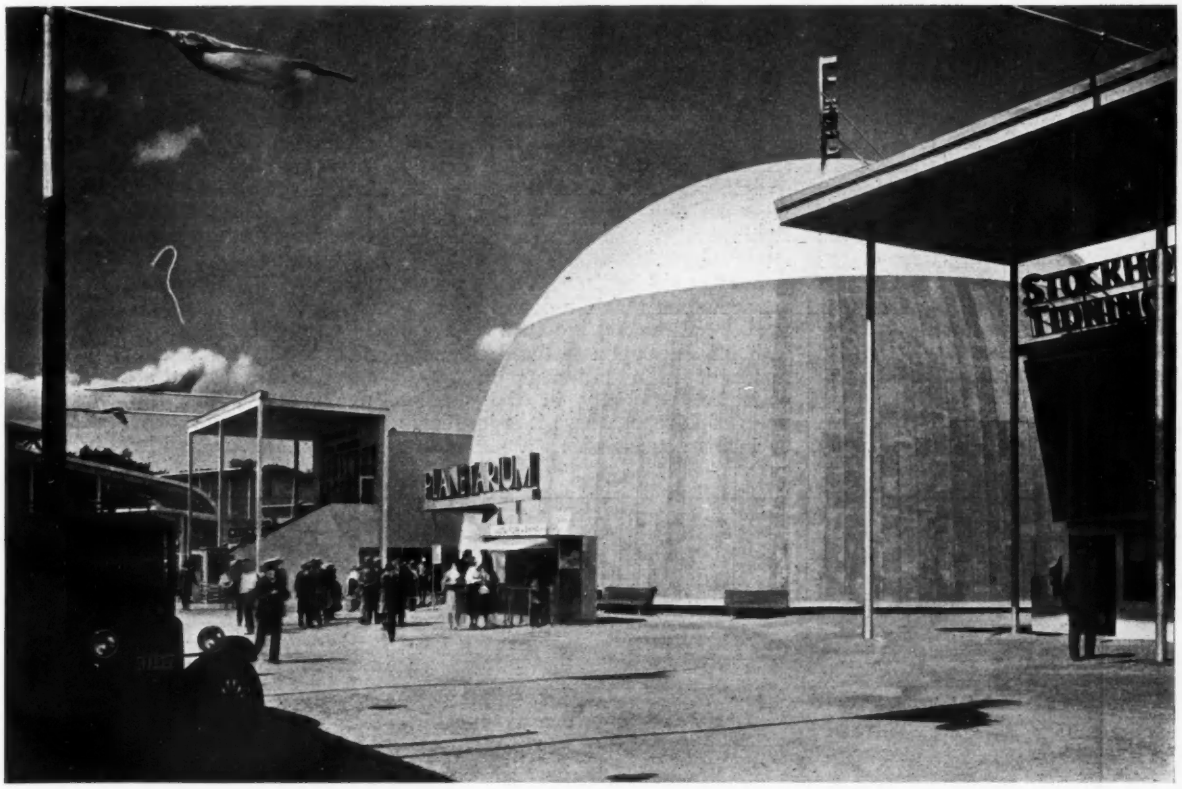
Functionalism

(*E. G. Asplund*

BY ROBERT

WHEN we think of Exhibitions Wembley naturally looms large in the mind's eye. Thus we automatically compare the Stockholm Exhibition with Wembley. At first, this may seem reasonable enough, but the actual differences are so great that in fairness to Wembley they must be recorded.

Wembley, to begin with, was much larger, and this alone made a visit to Wembley a portentous affair. Its site, too, was very different. The Empire Exhibition was placed in very ordinary Home Counties scenery, while the Stockholm Exhibition stands alongside a large expanse of natural water, Djurgardsbrunnsviken, at the end of the "Diplomat City" and opposite the Open-Air Museum, Skansen. This area is well wooded, and the Exhibition has many trees round it. It has, too, a greater proximity to Stockholm than Wembley



The strange blue and silver planetarium on the Corson. This feature stands out in great contrast to the horizontality of neighbouring buildings, and looks particularly beautiful when seen between silver birches from the water-side gardens.

EXHIBITION

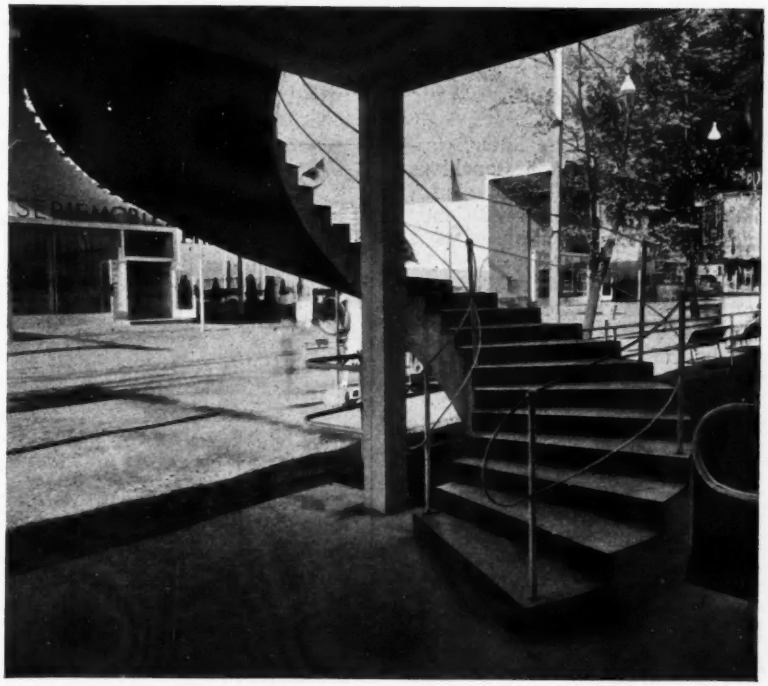
Boldly Expressed

Architect)

HURD

had to London. Again, the intent of the Exhibition at Stockholm is very different.

The directors wish to bring to our notice the Swedish effort to develop the mass production of staple articles that are bright, pleasing and artistic, as well as labour-saving and utilitarian, for domestic purposes (domestic in a very wide sense). The architect, Mr. E. G. Asplund, has therefore built far more for the actual exhibition of goods than we did. At Wembley one had the semblance of permanent buildings, e.g. the India Pavilion and the Government Pavilion—which were only *partly* exhibitive of goods, existing as well in themselves for educational purposes; they were not only booths for commercial display. Thus the Nigerian Pavilion, the South African Pavilion and others had none of the characteristics of "functionally" designed buildings. The architecture of



This serpent up the back of which we step to see the display of Nordiska Kompaniet apparently maintains this elegant position by its continual jaw-grip of the terrace below.

the main exhibition halls at Stockholm is dominated by the idea of good showmanship, based on a knowledge of display and refined taste. A pleasing simplicity and purity of line results, the light colouring of the outside walls becoming in effect an harmonious and unobtrusive frame for the exhibits themselves. Huge glass windows, brilliantly illuminated by night, enable the passers-by to get a good view of the exhibits after the closing time of the halls. Architecturally, the main point about the Stockholm Exhibition is that it is the boldest and most consistent exhibition of functionalist design in terms of its own characteristic beauty that we have yet had.

The entrance and Kommisariat form one building, the former being a lofty porch at the side of the latter, supported by slender rectangular stanchions and flying the flags of all nations. An introductory note of modern efficiency is struck by the chromium-plated steel entrance gates, a welcome substitute for the lumpy turnstiles we had at Wembley and often pass through on our way to see athletics or the Royal Academy.

After battling with the surge of guide and badge vendors inside the gates, we find ourselves walking parallel to but above the water, along the "Corson"—a terrace pathway past the stands displaying yacht and motor-boat building and various railway innovations. We pass the beautiful hemisphere of the Planetarium, which, with its blue and silver colouring, looks like nothing so much as a heavenly body, itself captured by an enterprising and resourceful astronomer for a few months, and moored at the Exhibition for the delectation of visitors. (What earthly ruse could have lured this lovely body from its heavenly course?)

This path opens on to the large square holding 50,000 spectators, seating 10,000, with a large stage impressively functionalistic in appearance, to house an orchestra. I listened to an open-air orchestral concert here, and can testify to the remarkable success of the acoustically-curved sounding-board. What is perhaps the most striking group in the whole Exhibition is visible from here—the Advertising Mast, with the main restaurant behind it. I see no reason why Asplund's boldly conceived Restaurant (Paradiset) should not have a wide influence upon the future development of such buildings in many countries, especially in the sunnier parts of Europe, where it is justifiable to include sunblinds as a permanent part of the design. In this case the horizontal effects of sunblinds and their shadows, cast along both straight and curved walls, has been fully exploited, while from inside, as has been noticed elsewhere, the long strips of clear night sky that become visible later in the evenings between the lengths of variously coloured canvas produce a startlingly original and charming effect.

From the Restaurant one proceeds alongside the water to the Specimen Houses, designed by different architects in competition, and not by the Exhibition architect, Asplund. It is not possible in a general article to go into much detail, but this part of the Exhibition made one realize immediately that Asplund had, in the main Exhibition buildings, evolved a comparatively happy manner of developing his exteriors, yet remaining primarily a "functionalistic" architect, whereas these lesser buildings seemed too casual in exterior design and were often crude in their anxiety to display the real flesh and bones of the limbs beneath the skirt. Inside these houses, however, surprise after surprise greeted the visitor. Such economy of spacing, combined with actual spaciousness, such charm of colour, depending with great daring almost entirely on large planes of colour, and such a display of modern furniture and plumbing, delighted and shocked one into a stupor of unforeseen and incredible domestic amenities.

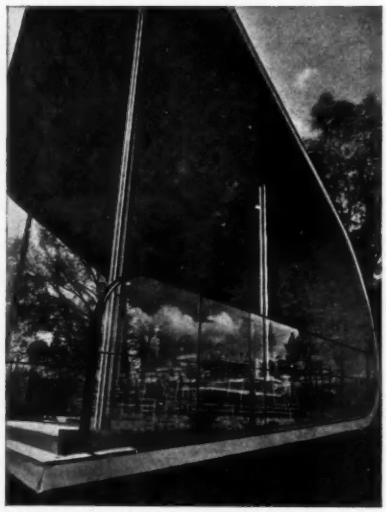
A path across the bridge leads to the Aquarium and to the terrace from which one gains a good general view of the Exhibition.

Before referring to the exhibits themselves, it is necessary to draw attention to the lighting of the Exhibition at

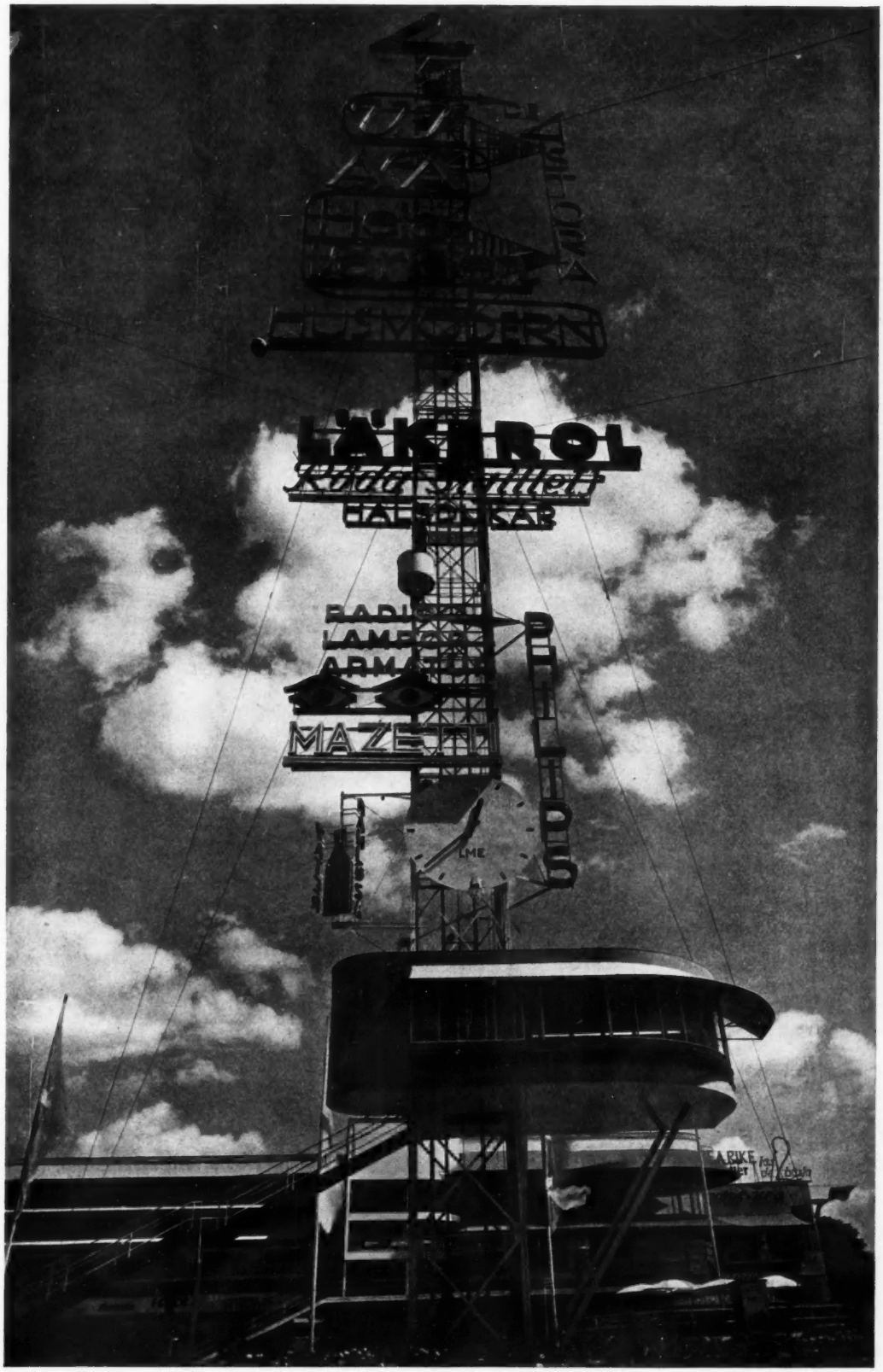


Stockholm Exhibition.] [*By E. G. Asplund.*

A full view of the Orchestra from the waterside. It is possible for 10,000 seated, or 50,000 standing, to hear music of all kinds, clearly and without distortion, in the open auditorium.



The copper-lined sounding board over the orchestra. The stanchions and sounding-board edges are panel-lit.



Stockholm Exhibition.] *[By E. G. Asplund.*

The 250 feet Advertising Mast, which is vividly lit at night. The low crow's-nest accommodates important persons wishing to listen to the music. At the top is the sign of the Exhibition—two aeroplane wings joined at one end.

night—an important ingredient of its architectural delights. Asplund has so arranged his Exhibition buildings that their large, brightly-lit windows help materially to illuminate the surrounding neighbourhood, thus reducing the necessity for "street lighting." He has also arranged panel lighting down the stanchions and along the roof lines of the entrance pavilion, the orchestra stand, and elsewhere, which give the Exhibition a bizarre effect from a distance—long thin sticks of light frankly revealing, even at night, the purity of the functionalist design of the buildings. In addition, there are two "stunts" which intrude on any general view—the Advertising Mast, a curious wardrobe of coloured electric signs dominated by two staring eyes; and an illuminated fountain on a raft in the middle of the lake, continually changing colour at the whim, it was said, of four men who sit in a sub-marine cabin playing bridge—dummy casually turning on this or that switch causing the fountain to dance in green on the lake or soar golden into the night sky.

It is difficult to know what exhibits should be mentioned. The writer was particularly impressed, however, by those of two firms, Orrefors and Svensk Tenn. Of Orrefors glass there is little need to speak here, save to emphasize the importance of watching Simon Gates work; but we do not know as much of Swedish Pewter (Svensk Tenn) over here as we should. The possibilities of this material, after many years of neglect, are being revealed once more, and some of the designs for light fittings, mirrors and tea sets, to take only a few examples, epitomize the Swedish capacity for instilling a peculiarly ingenious graciousness into nearly everything that they touch.

There has been considerable uneasiness, both before and after the opening ceremony, as to the success of Asplund's Exhibition buildings. Perhaps recent architectural successes of a more traditional nature in Stockholm—Ostberg's City Hall, Ivar Tengbom's Concert Hall and Match Trust Offices—rather tend to over-emphasize Asplund's functionalist approach to his problem. In spite of this, however, one cannot hesitate to congratulate the director, Dr. Gregor Paulsson, and Mr. Asplund on having achieved, in spite of opposition, this remarkable array of buildings which so successfully embody the architectural ideals of the present day. It is impossible to doubt the sincerity of Asplund's work or the efficiency of the result. Most of us, too, have been overjoyed at the spectacle that greeted us at the end of our long journey to Stockholm—and that, after all, is a fairly sound test.



Stockholm Exhibition.] [*By E. G. Asplund.*

Looking along the Corson towards the entrance, showing buildings typical of this Exhibition. In the distance, on the right, is the hangar, sheltering the yacht exhibit. Clock faces without figures are common in Stockholm, and the prevalence of flags is another feature not confined to the Exhibition itself.

THE WORK OF THE SCHOOLS: i—LIVERPOOL

BY E. MAXWELL FRY

THE yearly review of school work might be a more important event than it is if we could devise some plan of co-ordinating the drawings; and there is no reason why, with the opportunities for free study and unimpeded expression which the schools possess, they should not produce between them the guide to good architecture that we lack in these times.

The Liverpool Sketchbook has been a means of disseminating ideas in past years, but for some reason or other it does not reappear as it should do, when there are drawings waiting to be published as fine and as imaginative as those which I am about to discuss.

I know that to some extent the work of the schools is a reflection of what is taking place in the world at large. One has seen the A.A. invaded by Sweden, as Liverpool was by America. One has seen a deal of immature and half-digested ideas, and one realizes how often each drawing is an education to the student, and how little it may be the result of constructive thinking. Nevertheless one of the tangible benefits of the corporate functioning of the school system is lost to the profession at large so long as the results of school work, the very rich harvest of drawings of all kinds, the portfolio of contemporary design, is not available for the study of those who no longer share the first years of adventure.

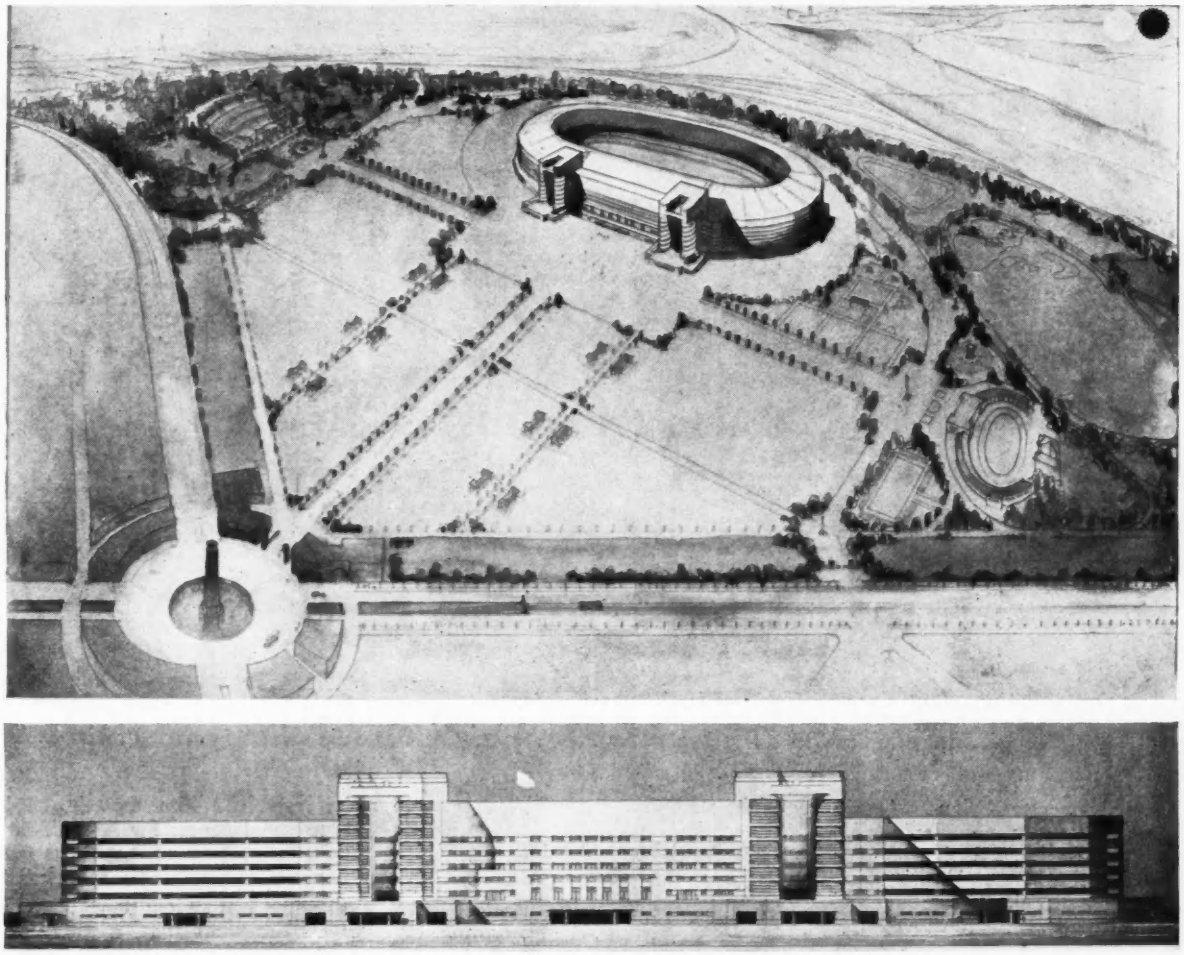
Gathered together in the various schools are hundreds of young men who for five years or so spend most of their time thinking of design. These men are guided by others whose architectural outlook is wide and inquiring. The former bring life, zeal and imagination to their work. The latter add to these qualities a sense of continuity; and out of their joint labours should be welded an instrument capable of registering great events and fine shades.

All this the school system has done and is doing for architecture, but I put forward a plea that some more tangible exposition of policy than such scattered notes as these can produce be offered to the world. The waste of material is otherwise on their heads.

It would seem unfair to write of a school's work on the sole evidence of a batch of photographs if these were not so full of imagination and of so high a standard that they are better able to sound their own announcement.

There is reproduced here a selection that includes work from three years of the school, some highly finished presentations and others of the more inconsequential order of sketch designs.

Would that there had been space to reproduce all the four drawings illustrating



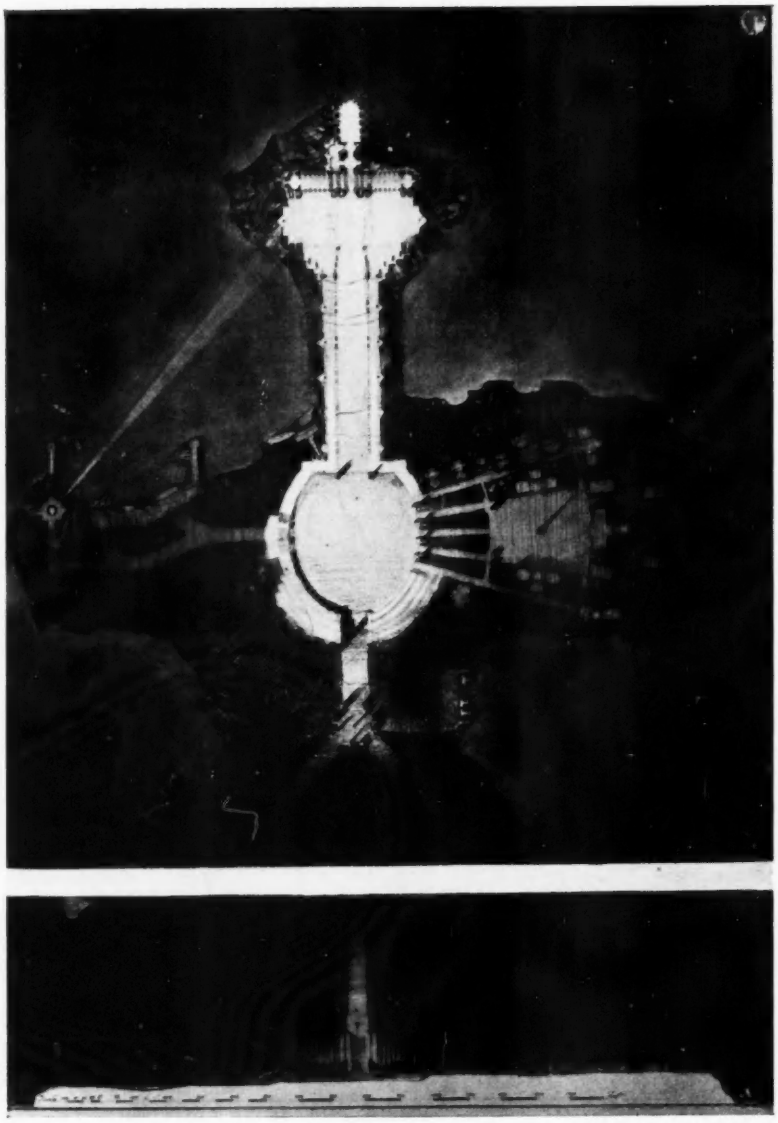
A reinforced concrete stadium for the city of Liverpool. By John Hughes, Liverpool University School of Architecture. Fifth year thesis. Perspective view; and principal elevation.

a design for a stadium, standing within a sports and recreation centre, by John Hughes. The nature of the project may be grasped from the rendered elevation and the working drawing of the entrance blocks.

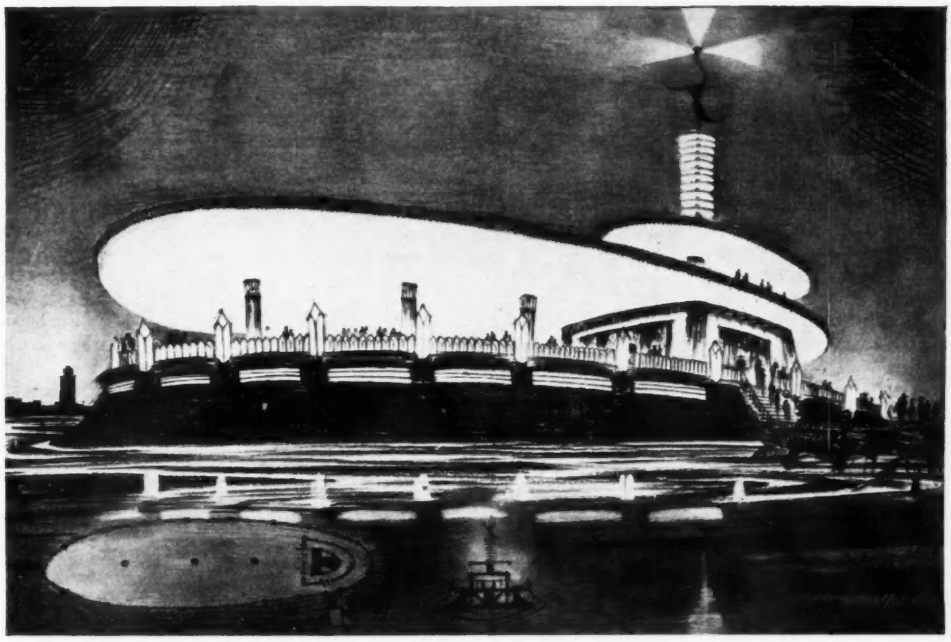
One has only to think of the Wembley Stadium to realize how this drawing is a more than competent expression of reinforced-concrete design. Concrete design will never progress until, as here, the basic idea of the designer is founded on the essential lightness of concrete construction, a lightness which is only really apparent when the material is used with the greatest economy, as one finds it used in the Royal Horticultural Hall, and in an earlier essay in concrete stadium design, the centre court at Wimbledon.

The working drawing will not reproduce with sufficient clearness to allow of a minute inspection of the plan, with the ingenious system of ramped ways that show so logically on elevation, and control the complicated system of circulation in and out of the stadium. Everything appears to be worked out and shown without redundancy on this drawing, which suggests the office of a well-tried engineer rather than the table of a fifth-year student; and I have no doubt that it will stand the criticism of specialists in so far as its mathematics are in question.

The two-day sketch design of W. G. Holford, of a subject dear to the studios for good reasons, is a magnificent piece of draughtsmanship, reminiscent of the very best work of the Parisian ateliers of time past. I will not attempt to discuss the merits of the design, because such things as these are so obviously a question of how far a man's imagination can lead him that it becomes more the business for a professor on the spot to compare it with its fellows than for one removed to analyse its good and its bad points. Sufficient for the day to recognize that someone has let himself go in a fine, grand manner and produced something that lifts him into another sphere. There can be



A monument to the founding of the United States of Europe. By W. G. Holford, Liverpool University School of Architecture. Fourth-year programme, two-day sketch design.



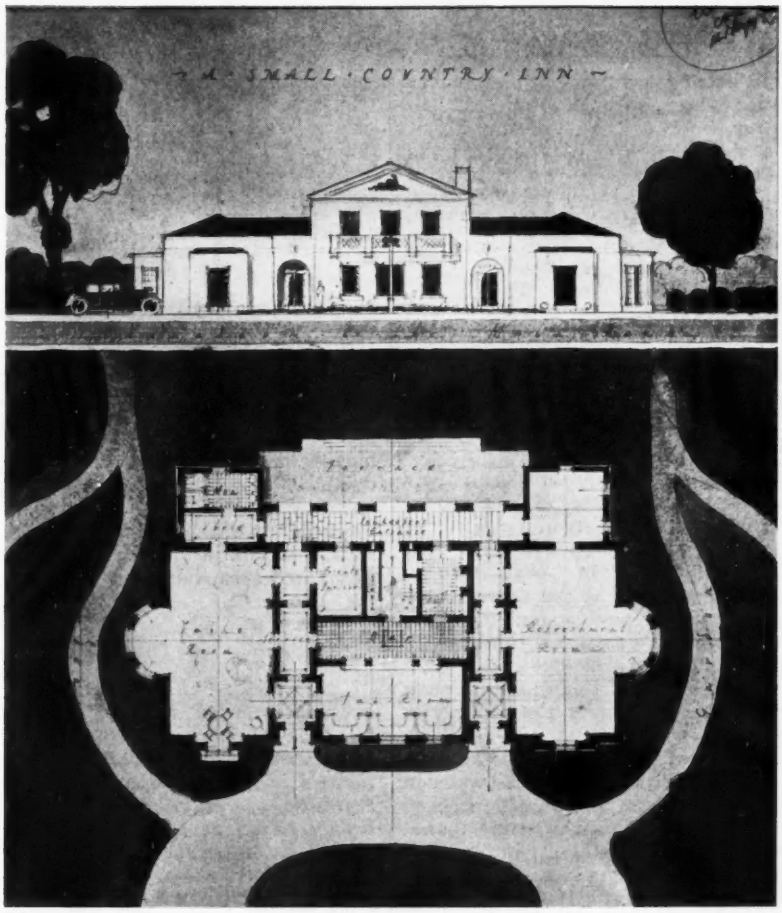
A barge for dancing. By A. M. Best, Liverpool University School of Architecture. Fourth year, six-hour sketch design.

little wrong with the spirit of a school that engenders this sort of effort.

The six-hour sketch design representing a barge for dancing, by A. M. Best, is the product of one Monday's high endeavour. Professor Reilly has always stressed the value of sketch designs as a means of stimulating imagination and training students in rapid presentation, and blessed is he whose nimble pencil and active brain produce gaieties such as this dancing barge. It is not so much that the world is full of people wanting dancing barges designed for them, as that the spirit which is necessary for a sketch design is one of the mainsprings of more serious design, and is of the full flavour of life into the bargain.

Finally, we seek the quieter pastures of the third year, and find in this pleasant and dignified scheme for a country inn something as worth having as other and more pretentious projects I could tell of. The plan is good, so long as one forgets some of the baser prejudices of modern publicans, and the whole design could be built fairly well as it stands, and be an ornament to one of the new roads.

These drawings have been selected from others to cover as far as possible the work of the various years of the school. If one judges the whole by the best, it can show that the Liverpool school's standard is rising, a matter for congratulation to both students and staff.



Elevation and ground-floor plan of a small country inn. By R. P. S. Hubbard, Liverpool University School of Architecture. Third year, two-day esquisse.

QUESTIONS THAT ARISE

Supply of Water

C. K. writes: "*The —— Corporation have bought a disused coal-mine which has been flooded for many years. They are pumping the water which, after treatment, is supplied to the town. This water has the effect, in periods of from two months or more, of filling up the flow pipes from fire-back boilers with a hard encrustation and necessitating heavy expenditure by property owners in taking out the fireback boilers and replacing the pipes. The water does not form this solid crust in the pipes unless it is almost at boiling point. (Many motor-car radiators have the same trouble if water from the local supply is used.)*

"*I should be glad of your expert's opinion as to whether any claim could be made with success, against the Corporation, for redress, for costs of repairs and replacements of the pipes?*"

The question before me is whether persons aggrieved by the state of the water supplied to them have a right of action against the local authority for damage they have suffered as a result.

Before one can express a final opinion on the matter it may be necessary to consider any local Act of Parliament giving powers to a local authority to supply water.

In the absence of anything to the contrary contained in any local Act of Parliament for the time being in force, a local authority constructing or purchasing any waterworks must provide and keep therein a supply of pure and wholesome water (Public Health Act, 1875, section 55). If the water is unwholesome a complaint lies to the Ministry of Health (see Public Health Act, 1875, sec. 299, and Statutory Rules and Orders, 1920, No. 2126), who, if satisfied after due inquiry that the local authority has been guilty of the alleged default, must make an order limiting a time for the performance by the authority of its duty in the matter of such complaint (Public Health Act, 1875, sec. 299). The Courts have no jurisdiction except if the order is disobeyed, when they can enforce it by mandamus (*Passmore* v. *Oswaldtwistle Urban District Council* (1898), A.C. 387), or the Ministry of Health can appoint some person to carry the order into effect.

The duty of supplying pure and wholesome water is performed if the water in the mains is pure and wholesome, even although it is of such a nature that it becomes contaminated in passing through the service pipes (see *Milnes* v. *Huddersfield Corporation* (1886), 11 App. Case 511).

It would appear that the liability of the local authority is limited to supplying water for "domestic purposes."

I have no information before me as to the nature of the property to which water is supplied or the purposes for which water is used, that is to say, whether it is used for "domestic purposes" within the meaning of the Act.

Assuming that the water is not pure and wholesome before it flows through the pipes, and that it is used for "domestic purposes" within the meaning of the Act, any ratepayer aggrieved can recover damages from the local authority (see *Simpson* v. *South Oxfordshire Water and Gas. Co.* (1908), 1 K.B. 917). E. F. I.

Petrol Station

E. S. writes: "*I have been trying to earn a living by keeping a small petrol filling station on a road at a spot where cars often stop to picnic in the summer. The County Council have served me with a notice that my station must close in six months, as it is in what they choose to call a prohibited area. I acquired the property some twelve months ago, and it has been built over three years. Can the Council force me to clear out? They have mentioned that they would consider a claim for compensation?*"

Under section 2 of the Petroleum (Consolidation) Act, 1928, County and Borough Councils have powers to make bylaws regulating the appearance of filling stations and prohibiting their erection in certain areas.

If your correspondent goes to the Council offices he is entitled to inspect without charge the plan showing the extent of these prohibited areas. As this station was in existence before the making of the bylaw, compensation is offered.

The Council have the power to prohibit the use of the building as a petrol station within a definitely scheduled prohibited area, but must compensate the owners. G. H. G.

Re-use of Old Tiles

J. K. writes: "*I should be grateful for information as to the best method of specifying the following:*

"*I am making an addition to an old half-timbered house which has a tiled roof, and demolishing some outbuildings, which include a large barn, also roofed with similar old sand-faced tiles. I have carefully examined the roofing, and the majority of the tiles, if taken down carefully, can be re-used. On measuring up the roofs I find, allowing, say, for the re-use of 70 per cent. of the existing tiles, that I have about one-third of the amount required for roofing the new addition. Would it be safe to specify that the builder is to allow for fixing a given number of squares of existing tiling, so that he could know roughly the amount of new tiling actually required?*"

I have found by experience that I have been deceived regarding the number of tiles on an old roof fit for re-use. A builder may be keen to save as many of the tiles as possible; on the other hand, the haste to clear the site, or the prospects of a loss of time on the work, may leave the stock of sound tiles less in size than the broken tiles heaped for carting away.

I think the safest way is to specify that the builder is to allow for carefully removing, cleaning and stacking on the site all sound tiles from the old roofs. Specify that new tiling is to be supplied and fixed to the new roofs.

The number of old tiles available can be checked, used, and the amount deducted from the builder's price at current rates for tiling. The builder will probably score on cartage, but a saving will be effected on the contract price, whereas if the number of old tiles estimated for re-use had been insufficient, an extra would necessarily arise on the contract. W. A. D.

Cracking to Party Wall

"Owner" writes: "*I am the owner of a row of terrace houses. The party wall between two of them has for some time shown signs of cracking which recently has become much worse. A builder who does my repairs tells me that the wall is dangerous and must be pulled down. This would be very expensive for me, as house property does not pay now. The upper floors which were redecorated some two years ago are perfect. Is there any method other than that my builder suggests?*"

It would appear that the cracks are due to settlement of the foundations. If the cracks do not extend above the ground floor the wall should be shored up at each end and the adjoining windows braced across. Remove the weight from the wall by strutting up all floors (it is presumed the joists run into the wall) and distribute the weight on the ground by cills.

The wall should be needled immediately above the ground floor every 7 ft., and the needle posts must be carried down to solid ground. The defective basement wall can then be taken down in short lengths, and the foundations excavated to get a sound bearing. In rebuilding it is necessary that the new work be built tight up to the underside of the old. As this is a delicate piece of work it should not be done without consulting an architect.

J. D.



ENGLISH PRECEDENT No. 124

OLD HOUSE, MILTON REGIS, SITTINGBOURNE, KENT

This remarkable timber front is nearly the last remaining example to be found of its period in the once prosperous inland port of Milton Regis, though the type is reproduced even in Early Georgian houses in adjoining streets with delightful results. It is a pity that, Sittingbourne being an industrial town, there is little impetus towards saving a building that would be prized in a better situation.

—[E. MAXWELL FRY]

LETTERS FROM READERS

Priced Bills of Quantities

SIR,—May I venture to contradict the statement of Karshish in his reply on this subject when he says that the rates have no existence until it may become necessary to measure variations?

The contractor is only required to supply a "copy" (R.I.B.A. contract, 1909, without quantities), and therefore they have a very definite existence in the builder's office in the hands of his estimator or surveyor, and it is just because the architect's "duty to one is as binding as to the other" that I expressed the view that it was unfair that one party alone should have access to such rates.

If the quantities are part of the contract (which in my own experience is almost universal and, in my opinion, fairer to all concerned) the priced bill should, as Mr. Leaning pointed out, be also available for valuations for certificates, and even if they are not part of the contract this use would appear to be one of the purposes of the contract referred to in clause 3 of the R.I.B.A. conditions.

ARTHUR J. WILLIS

SIR,—In the form of agreement when quantities do not form part of the contract, provision is made in Clause 3 for the copy of the estimate to be sealed or not, and I do not see that any argument arises. Either they are sealed, or they are not sealed, and in the latter case the architect has access to the copy of the estimate.

When quantities do form part of the contract (and this I believe to be the usual case where a quantity surveyor is employed), a different form of agreement is provided.

In that event I should have thought that it was necessary for the priced bills to be carefully inspected so that the architect can be sure that they do not contain any prices likely to be unfair, either to the contractor or to the client, before they are signed.

If the architect is not to have access to the bills during the progress of the work, how can he inform his client of the probable cost of variations, when the contractor may have put an absurdly high price against items on which he expected extras?

I do not see anything in the form of agreement when quantities form part of the contract to suggest that they should be kept under seal, and I should like to know if Karshish is contending that they should be so kept under these circumstances.

FELIX J. LANDER

Group Specification

SIR,—I am in doubt as to what Mr. T. Sumner Smith, in his letter on specifications in your issue dated July 9, means by several types of specifications. He mentions two distinct types, and these varied according to the information shown on the drawings. As far as I am aware, the practice in and around Oldham is to supply but one type of specification, and then only when bills of quantities are not supplied.

In obtaining tenders without bills of quantities the usual practice is to supply a specification with the drawing. I regret to say that these specifications as a general rule describe only, and even then but indifferently, the things shown on the drawings, so that in estimating it is invariably the one who omits to take note of things not shown on the drawings or described in the specification that gets the job.

A specification is considered necessary only when bills of quantities are not supplied. The bills of quantities serve both purposes. Very rarely are quantities and specification prepared and supplied for the same job.

LYNN C. DOYLE

Profit on P. C. Items

(Reply to "Surveyor")

SIR,—I was interested in "Surveyor's" reply to "P. C." in your issue for June 18.

I have considered including in my specifications a clause regarding settlement of profit in connection with variations on P. C. items and provisional sums, where the builder has only the specification and drawings to price from.

I have, however, come to the conclusion that generally there is very little in the variations as regards savings on work of this type, and have usually found that contingencies have come to the rescue of extras on these items.

The first of the methods, which suggests that the builder be asked to state the percentage of profit required on these items, might be usefully employed where, on an alteration job, there is a possibility of a client finding it necessary to make a substantial saving on a provisional item. This occasionally happens when an unforeseen extra crops up.

In any case, the clause should be worded to give the builder the opportunity of not adding profit if he does not wish to add it, but he must state this in his tender.

I disagree with the second method suggested by "Surveyor," in which the builder is informed that he will be allowed a certain percentage. I have known quite a number of builders in keen tendering forgo profit, especially on provisional sums, and rely upon cash discount only.

This method only asks the builder to add a profit which possibly he might not add.

W. A. D.

Cost of Houses

SIR,—In discussing the urgent problem of working-class houses Astragal states that "architects and builders must learn how to build houses for less money." This is surely unfair to both architects and builders, who could and would build cheaper and equally hygienic houses if they were not hampered in almost every district of England by antiquated bylaws.

If one also thinks of the expensive plumbing now required by the higher standard of living expected by all classes of society, and the extraordinary love of privacy in his domestic life of the working man, which has caused every scheme of communal kitchens and wash-houses to fail, it will be clear that the high cost of building is due rather to the British public itself than to the architect and builder.

As soon as the workman will be content with a standard of living comparable with his wages, and ceases to elect Socialist members to his local Councils, then houses will be able to be built for him at a rent adapted to his pocket.

L. E. WILLIAMS

Damp in Chimney-stacks

SIR,—I am much obliged by your expert's reply, published in your issue for July 9. I hoped that some other method of inserting dampcourse into chimney-stacks than taking down and rebuilding might be known to your readers, and that my query might elicit such, with details of an admittedly difficult operation.

My reason for stepping the d.c. in the stack is to leave no body of brickwork between the d.c. and the roof to get soaked with rain. This is a good reason and I see no objection to it. Of course also my d.c. goes through to the flue and is turned up on the inside.

I hope that you will print this letter because the information it gives may be of use to others, as well as the information it seeks being useful to me.

W. B. H.

Water Roads and their Possibilities

SIR,—I welcome the timely reference in your issue for July 2 to the "Water Roads" of England. It certainly is

strange that, at a time when road congestion is slowing up industry almost to a standstill, it should be necessary to remind business people that they should make greater use of our waterways.

You point out very properly that these waterways are capable of taking a continuous stream of traffic night and day. It would be well if business men would realize that elementary fact. Many of them are still deplorably out of touch with the possibilities of canals and with their more recent development.

They apparently still think of canals as a system of derelict waterways along which a few boats convey any merchandise for the delivery of which there is no particular hurry. They fail to realize that, as a result of the amalgamation of five important canals in this country, the Grand Union Canal now provides a through route by "water road" from Brentford or the Regent's Canal Dock, Limehouse, to Birmingham, and that the time taken in transit of goods from point to point is very little, if any, in excess of that normally taken by rail transport with its inevitable siding delays.

At the busiest hour of the working day, when roads leading from the docks through the industrial East of London are choked with vehicles, you may see dozens of barges, some carrying as much as 100 tons of merchandise, pressing on to their journey's end noiselessly, efficiently and without confusion.

And there is ample room for considerably more craft than are already on the canal.

The steady-going canal tortoise meets fewer impediments on its journey than the more spectacular road and railway hare; and it often gets there first.

L. BYGRAVE,
GRAND UNION CANAL COMPANY

The Sketch Club

SIR,—Many thanks for producing so well my two sketches, "Ballaugh Old Church" and "The Old Pier, Douglas."

I also received with pleasure a copy of THE ARCHITECTS' JOURNAL from you, with particulars of the new competition. May I congratulate you on your policy —as usual, foreseeing.

Unfortunately I shall be prohibited from entering, as I cannot take my holiday until the end of September this year; otherwise I should certainly have entered.

I shall, however, still derive a great deal of pleasure (as I am doing whenever sketches appear now) from seeing the "prints of other people's holidays."

Again many thanks.

WILFRID T. QUAYLE

Settling-Up Honeywood: viii

BRASH GOES IN OFF THE DEEP END

BY KARSHISH

(H. B. CRESWELL)

¶ *The owner, Sir Leslie Brash, has just received from Spinlove, his architect, a "brief summary" of Grigblay, the builder's, preliminary statement of account.*

BRASH TO SPINLOVE

Dear Mr. Spinlove, 2/6/26.

Eighteen hundred and ninety-two pounds! Is *eighteen* hundred the sum you intended to intimate when you informed me you anticipated additional extras accruing to "several" hundreds? So you did not anticipate so largely augmented a figure, but supposed that I was prepared for it; and the final amount is still to be eventually ascertained, and you *hope* it will be a substantially reduced figure, and you will not agree to these monstrously extortionate inflations without "explanations"! Explanations, indeed! Permit me to emphatically indicate that I will certainly require something more than mere *explanations* of this scoundrelly attempt to victimize me. Is this the gentleman of high professional attainments who undertook to safeguard his employer's interests and protect him from the inordinate rapacity of building contractors—whom I was always well aware to be no better than packs of thieves and robbers? Is this the Associate of the Royal Institute of British Architects of impeccable credentials, specially recommended to my favourable attention for his distinguished achievements, who allows himself to be cajoled and humbugged and swindled as long as "explanations" are given? The matter has taken a most serious magnification of aspect, and you may inform Mr. Grigblay that, explanations or no explanations, I will not so much as condescend to consider his preposterous account unless he cuts it down by *at least one half*.

£400 for alterations to kitchen! The claim is perfectly monstrous. The kitchen arrangements, may I remind you, were not increased in dimensions by the corrective emendations. I certainly anticipated a small extra cost to reimburse the builder for his trouble in adapting the work he had previously performed; but four hundred pounds! and as "approximate cost"! Does this intimation signify that, if I consent to the additional charge, the fellow is to be at liberty to further augment the amount?

Then, "piping ditch—£114." Will you permit me to ask leave to remind you that you quoted me £20 for that work—and that I hold your letter tendering the offer? *That* item of cost of £114, at any rate, will not, I warn you in anticipation, be amenable to any "explanations"; for I definitely repudiate any intention of paying more than the previously stipulated sum. "Time lost by Sir Leslie Brash's orders"! When did I order time to be lost? Preposterous! "Various minor alterations — two hundred pounds"! Does my architect seriously propound the suggestion that I should disburse any sums this saucy fellow demands without even being previously informed under what pretence the exaction is extorted? "Extra journey money"—what does that portend, may I be permitted to ask? I was prepared for an additional extra in respect of various grates and fittings, but what conceivable excuse is propounded why I should be mulcted for electric wiring and casement gear and heating radiators and drains and waterpipes; and why, may I venture to inquire, has the fellow made no deductions for the saving on the well and pump which you previously held out as an inducement to me to sanction the alternative arrangement? And where, pray, has the £300 saving been deducted, which you informed me had been included in the contract to reimburse expenditure for additional extra work which might eventually become unforseeably needful, and which you asseverated must be reserved for that express purpose? Am I to understand that Mr. Grigblay has appropriated those credits, and that you have failed to detect the fraud?

It is necessary that I should make an early opportunity of conferring verbally with you without delay, as the whole matter has attained most serious proportions. Eighteen hundred pounds! It is the most monstrous and unheard-of imposition that ever was attempted; and if Mr. Grigblay or my architect supposes that I am a gentleman who will meekly submit to such bare-faced robbery and extortion, he will regretfully find himself very greatly mistaken.

Yours truly,

Poor old Brash! He has let himself go

with a vengeance, and it is to be hoped he felt better afterwards.

SPINLOVE TO THE VERY REVEREND THE DEAN OF RUNCHESTER

Dear Uncle Harold, 5/6/26.

I do not know who to turn to for advice. I have just finished a house for a certain Sir Leslie Brash, and the enclosed is a copy of a letter I have received from him in reply to one of mine covering a summary of the builder's Statement of Account. There is rather a heavy bill of extras, but that is not altogether my fault; and, whether it is or not, how can I allow anyone to write to me as he does? I want to do the right thing and to avoid quarrelling with him, but how is it to be done? Can you tell me what you think I ought to do? and can you write at once, please? My love to Auntie and yourself.

Your affectionate nephew,

Apparently, Brash has aroused unrighteous impulses in Spinlove, who feels the need of a little spiritual guidance to ginger up his humility, console his wounded pride, and enable him to swallow the affront without doing violence to his self-respect.

SPINLOVE TO FREDERICK DALBET

Dear Fred, 5/6/26.

Look what your friend Brash has written to me! How can I answer such a letter without hopelessly quarrelling with him? The whole bother about the extras is really his fault and not mine—or most of it is, anyway. Did you ever read such disgraceful abuse? As it was you who introduced me to Brash, I feel you might be able to help smooth things over. Hurry up with your reply.

Yours,

JIM.

Spinlove's position is made difficult by the fact that he is so much younger a man than Brash; but, if he were not, Brash would scarcely have written as he did, nor would he make those allowances to which Spinlove's youth and inexperience entitle him.

DALBET TO SPINLOVE

Dear Jim, 6/6/26.

I don't see what I can do. Tell the old bounder to go to blazes. I warned you he was peppery, and he has gone in off the deep end this time, that's all. He has always been nice to me—but then I am not his architect. Cheer up!

Yours,

THE DEAN OF RUNCHESTER TO SPINLOVE

My dear James, 7/6/26.

We were all most pleased to hear from you again, as it seems a very long time since you wrote either to your aunt or to myself.

Patience, my dear boy, patience! Nothing is to be gained by hasty action of any kind. As you have often heard, no doubt, to forgive all is to understand all—or rather the other way about; and your wish not to quarrel with your employer, but to do the right thing, is highly commendable and just what your aunt and I would expect of you. Be not cast down; fight the good fight, and above all, as Hamlet says, "To your own self be true, and it must follow as the night the day that thou canst not then be false to any man."

I think if I were you I should be inclined to send Sir Lindsay Brosh a small token of esteem—a brace of trout if you happen to be fishing, or a souvenir of your recent travels; or failing these, possibly a copy of my *Pensées from Parnassus*, which I shall be glad to autograph and send you for this purpose. The fact that the author is a near relative would give the gift the character of a spontaneous expression of goodwill.

We gather from your letter that you are unaware that your aunt was seriously indisposed for several weeks during the winter.

Your affectionate uncle,

With all respect to the Dean, Hamlet does not speak the words quoted and, though the maxim is admirable of its kind, it is not the kind of maxim Spinlove wants.

However valuable advice on technical points and on questions of principle may be, it is worse than useless for Spinlove to ask for direction in matters touching his personal relations with others. He must brace himself to draw the decision from his own inwards, where alone it is to be found. To turn to friends, as he here does, is to turn tail and to confirm the indecision he seeks to escape. He expects others to understand conflicting reactions of his own soul which he cannot himself interpret.

Neither Dalbet nor Uncle Harold the Dean have made any attempt to put themselves in the supplicant's shoes, but—as can only be expected—show themselves much more concerned to adopt a pose flattering to their own self-esteem than to solve Spinlove's difficulty. Even if they were in possession of the whole history, and succeeded in identifying themselves with Spinlove's plight, the quarrel would be theirs and not his, for their individualities are different; and, for the same reason, their advice, however sound for themselves, would be valueless for him. The boisterous, good-humoured resentment of Dalbet, and the ingratiating affability of the Dean, might meet their respective cases excellently had Brash become involved with them; but it would be wildly inappropriate for Spinlove either to tell Brash to go to blazes or to present him with a copy of uncle's new book.

No one can help Spinlove. So far from getting help from his friends, their letters can only increase his perplexity and aggravate his indecision. By yielding to the impulse to ask advice at all, he surrendered not only his belief in himself, but his power to decide; and he has allowed a shrinking admission of defeat to fill days which should have been applied to arriving at decision.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 9/6/26.

May I be permitted to apprise you that I have received no communication from you anent my urgent request for an immediate appointment.

Yours sincerely,

GRIGBLAY TO SPINLOVE

Dear Sir, 7/6/26.

Our Mr. Tobias, chief prime-costing, will call at your office with vouchers, etc., at 11 on Wednesday, for the purpose of going into the account with you, as arranged over phone.

Yours faithfully,

Their Mr. Tobias will not be able to give Spinlove the sort of information he chiefly needs. A builder's prime-costing clerk deals only with the pricing and collection into the account of workmen's time-sheets and merchants', store-keepers', carters' and other vouchers allocated to it by the foremen and others. What Spinlove chiefly wants is the authority, or justification, for the various extra charges. Bloggs, the foreman, could give him the facts, but Bloggs, of course, is now in charge of other work, and perhaps far afield.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 10/6/26.

I have not replied to your letter as I have expected that on reflection you would wish to withdraw it.

Yours sincerely,

This is a capital move. The evasion is neatly managed, and Brash is warned, and in such a way as to encourage him to reconsider his position.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 11/6/26.

I was taken aback with natural surprise on receipt of your communication. I indited my protest in terms which the circumstances suitably warranted, and you must permit me to remind you that it is yourself I have to thank for the necessity of doing so. I consider that the suggestion of withdrawal—though it might meet the very natural desires of a professional gentleman in your situation—is not one that is properly appropriate to the occasion, and I must request an adequately complete reply without further delay.

Yours sincerely,

PS.—I shall be obliged if you will transmit a copy of my letter as I omitted to make a transcription of it.

Brash has had eight days in which to calm down. He seems to have written his offending letter in an hour of liver-inspired fury, and has quite forgotten what he said. Spinlove ought to be able to find his cue here. It is unfortunate Brash kept no copy of his letter or he would probably have accepted Spinlove's invitation to withdraw.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 12/6/26.

As you ask, I enclose copy of your letter, and in accordance with your instructions reply to it in as completely adequate a manner as I can.

In disparaging my concern for the large total of the extras, you forget that that concern was not on my own account but on yours, and also that it is not I who am responsible for the figure, but yourself. I warned you at the beginning that if you interfered with the work the extras would mount up, and that it would be impossible for me to keep control of the cost if you gave orders direct to the builders. You paid no attention to the warning, and now wish to saddle me with the consequences of your having ignored my advice.

The value of the kitchen alteration is a question of fact to be ascertained by the quantity surveyors, and I am no more responsible for the cost of the work than I am for the ordering of it, as a moment's reflection will surely show you. The amount is an approximate figure, because the exact figure has still to be ascertained.

I regret that I misjudged the probable cost of piping the ditch, and I think that, on examination, Grigblay's figure will be found to be in error; but I did not "quote" for the work. What I did was all that any architect can offer to do, namely, to give his opinion of probable cost. Only the builder quotes (i.e. estimates or tenders), and in this case Mr. Grigblay was not called on to do so, as you did not ask for an estimate. The exact cost will be proved by vouchers recording the time and materials expended on the work, which the quantity surveyor will embody in the account when I have examined and certified them as properly to be included in it.

It is such vouchers as these, furnished by the builder, that I referred to when I spoke of "explanations." Your assumption that I used the word in a sense that made it idiotic, instead of in an exact technical sense, can only be explained by an intention to affront me.

Other items you mention it will be necessary for me to see you about, for, as the works they refer to were ordered without my knowledge, I have naturally little knowledge of them.

The £300 contingencies was cut down to £100 in order to reduce the tender to a reasonable figure; and this sum and the saving on the well, and certain other credits, have been set off, in the brief summary I sent you, against the cost of other works that became necessary. [*Ahem!*] The final statement of account will be laid before you when I receive it. I am not responsible for the delay, which is due to the intricacies arising from the many extras and variations ordered by yourself.

The extras on wiring, radiators, water supply and drains are due to extensions and alterations of completed work ordered by you or by Lady Brash, or made necessary by interferences with other work, and they have nothing whatever to do with me. The extras on fittings is the excess of the cost of goods you yourself chose after I had informed you of the provisional amounts included in the contract to cover them.

Your aspersions on Mr. Grigblay are, so far as I know, without any kind of justification; and you have, I think, had abundant opportunities during the past two years of forming a very different opinion of him.

I think, Sir Leslie, that you wrote in haste and in anger, and that you will wish to make amends for references to myself which seem to me openly contemptuous and intended for no other purpose than to affront me. In that confidence I will here merely say that, however mean an opinion you may hold of my capacities, I think I am entitled to a chance of explaining technical matters before being abused because you yourself do not happen to understand them.

Yours sincerely,

This is a remarkable letter for Spinlove to have written; but although some of his explanations are thin, we have before noticed that he always comes out strongest when his apprehensions are involved. We have also observed Mr. Spinlove to be a temperamental person, torn by conflicting impulses of vanity and prudence, in whom self-control is schooled by terror. Here, however, we find him expressing himself forcibly, as the circumstances require, but with restraint and cool purpose, and enough of courtesy—in presuming good intentions in his opponent—to rob the frankness of his retort of offensiveness. This letter of Spinlove's, however, as well as that to which it replies, has a colour foreign to professional correspondence: they suggest a quarrel between men whose friendly relations are proof against frank interchanges.

BRASH TO SPINLOVE

My dear Mr. Spinlove, 14/6/26.

I certainly was not aware of the asperity of language into which my natural rancour at the very inflated extortions of Mr. Grigblay betrayed me, and I desire to entirely withdraw my disparaging inferences anent yourself, which I greatly regret and for which I offer you my profuse apologies. They certainly are such as I had no intention of intimating, nor do they represent my opinion; in fact, I have to regretfully admit that I wrote hastily and in a moment of heated indignation, and I hope you will entirely eliminate from your mind all memory of my accidental and quite unpremeditated lapse from discreet language.

As regards the various matters expounded in your communication, I still consider that your elucidation is—if you will permit me to say so—very far from completely satisfactory, and it is imperatively desirable that I should discuss the whole aspect of the situation with you.

I enclose cheque for £270 further on account of your fees. You will comprehend that until some explanation of the inflated sum upon which the percentage is computed was forthcoming, this disbursement was not one I could reasonably contemplate.

Yours sincerely,

It is to be noticed that by putting himself in the wrong in one matter, and having to make a withdrawal, Brash has disorganized his whole line, and is even reduced to paying up as a step towards re-establishing his fortifications. This, however, is not the first occasion when Brash has justified Dalbet's original description of him as a "real good sort." He here again reveals himself as a man whose foibles overlie generous instincts.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 15/6/26.

Many thanks indeed for your extremely kind letter. I need not tell you what very great pleasure it gave me. Of course, I am delighted to accept your apology and withdrawal, and will now forget all about the matter—in fact, I have already put it entirely out of my mind, and I am only sorry I felt obliged to make the protest, as I feel sure you will realize I could scarcely avoid doing or I should not, I need hardly say, have put you to so much trouble.

I confirm appointment with your clerk by telephone today to see you here on Wednesday morning next. I shall before then have discussed matters with the builder.

I enclose form of receipt for cheque, for which I am much obliged.

Yours sincerely,

This is much more like the Spinlove of old acquaintance. If he did not so obviously mean well, his client would be likely deeply to regret that he ever gave way an inch.

[NEXT WEEK: IX—A SANITARY CONSULTANT COMES ON THE SCENES]

SOCIETIES AND INSTITUTIONS

R.I.B.A. COUNCIL MEETING

FOLLOWING are notes from a recent meeting of the R.I.B.A. Council :

The Ancient Monuments Board for England : The President was nominated to represent the R.I.B.A. on the Ancient Monuments Board for England.

The Court of Governors of the University of Sheffield : Mr. C. M. E. Hadfield, F.R.I.B.A., was appointed to represent the R.I.B.A. on the Court of Governors of the University of Sheffield.

Joint Committee on School Lighting : Mr. John Swarbrick, F.R.I.B.A., was appointed to represent the R.I.B.A. on the Joint Committee on School Lighting which has been set up by the Illuminating Engineering Society.

Report of the Conference on Plumbing : The report of the Conference set up to consider and report on the question of damage to plumbing work caused by frost was approved. The report will be published in the *R.I.B.A. Journal* and also in pamphlet form.

The Fellowship : The Council, by a unanimous vote, elected Mr. E. H. Henderson of Canberra, Australia, to the Fellowship.

Membership : The following ex-members were reinstated :

As Associate : Lieut.-Colonel Raymond Synnot.

As Licentiates : William Pearson Holgreaves, Walter Potts.

R.I.B.A. INTERMEDIATE EXAMINATION RESULTS

The R.I.B.A. Intermediate Examination qualifying for election as Student R.I.B.A. was held in London from May 30 to June 5, and in Manchester from May 30 to June 4, 1930.

Of the 187 candidates examined, 80 passed and 107 were relegated. The successful candidates are as follows :

Ashley-Smith, E. T.
Belsey, A. J. G.
Billington, P.
Bradford, W. N.
Brown, A.
Brown, C.
Brown, L. A.
Brown, V.
Carter, F. H.
Chantrey, G. H. B.
Chapman, E. B.
Church, A. G.
Clayton, T. H.
Coker, W. E. G.
Cook, J. H.
Cortis, H. W.
Davis, C. H. R.
Deleuse, J. E.
Denbigh, G. D.
Elgey, C.
Fairweather, J. McD.
Farnsworth, J. E.
Fleming, D. E.
Fox, C. F.
Goffey, A. E.
Gott, A. F. E.
Gratrix, H. H.
Hardwick, J.
Hey, J. A.
Huddy, G. V.
Hunt, W. J.
Ind, L. C.
Israel, L.
Kemp, R. C.
Kilner, L.
Kirk, S. F.
Lang, R. B.
Law, C.
Lawton, E. A.
Light, F. J. G.
Lindy, K. J.
Little, R.
Lowe, G. C.
Marsden, W.
Maskell, S. J.
Moncrieff, H.
Munro, C.
Nicklin, N. C.
Normington, H. A.
Page, R. J.
Pearce, A.
Peat, J. T. W.
Peers, F. W.
Pilkington, T.
Price, P. J.
Priestman, H. D.
Read, R. T.
Reece, N. L.
Reyner, F. B.
Reynish, R. L.
Risbridger, H. J.
Robb, G.
Rose, K.
Runnicles, C. G.
Senior, D.
Sherwin, A.
Simms, A. E. H.
Smith, J. E.
Spivey, C. A.
Sternfeldt, S. M. B.
Stott, J. P.
Tee, R. G.
Thorpe, J. L.
Turner, F. J. W.
Vardy, J. D.
Vaux, E. H.
Watkinson, P. G.
Wheatley, N.
Wilkinson, A.
Williams, I. M.

R.I.B.A. STATUTORY EXAMINATION

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the Examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on October 15, 16 and 17, 1930. The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is September 24. This examination fee of £3 3s. will henceforth include the issue of the Certificate of Competency, if such be granted. Full particulars of the examinations and application forms can be obtained from the Secretary, R.I.B.A.

R.I.B.A. INTERMEDIATE EXAMINATION

Newcastle-upon-Tyne will be one of the centres for the R.I.B.A. Intermediate Examination to be held in November 1930, provided sufficient candidates wish to take the examination at that centre.

PORTRAIT OF THE PRESIDENT

Sir John Lavery, R.A., has kindly consented to paint the presidential portrait of Sir Banister Fletcher which will be presented to the Royal Institute of British Architects in 1931.

NORTH WALES ARCHITECTURAL SOCIETY

Quite a number of the members of the above Society availed themselves during the last week of the invitation of Mr. Clough Williams-Ellis to inspect his model settlement at Port Meirion, near Portmadoc.

Mr. Williams-Ellis personally conducted the members over the estate, and afterwards extended his hospitality by entertaining them and their ladies to tea on the terrace of the hotel.

Port Meirion is well worth a visit, if only to give one a glimpse of Mr. Williams-Ellis's vivid imagination, for were it possible for a visitor to be able to get rid of the idea of being in Wales, the buildings and layout would at once suggest an old-time village on the banks of the Mediterranean.

INTERNATIONAL CONGRESS OF ARCHITECTS AT BUDAPEST

The Twelfth International Congress of Architects will be held this year at Budapest from September 6 to 13. All architects and others interested in architecture are invited to take part in the Congress.

Among the subjects to be discussed are the following :—

1. Reform of the special training of architects in accordance with practical requirements, and with special regard to the knowledge expected from modern architects in the domain of finance, economics and organization.
2. Representative bodies of architects.
3. Protection of the artistic copyright of architects in international relations.
4. The rôle of the architect in industrial construction.
5. Architectural acoustics.

Messrs. Thos. Cook and Son, Berkeley Street, W., have been appointed hotel and travel agents, to whom all applications for membership of the Congress should be addressed.

Architects' Benevolent Society

The Architects' Benevolent Society (Insurance Department) have issued an interesting leaflet to describe a sound investment to provide for retirement, either in the form of a capital sum or as an income for life. Assuming a person will be thirty years of age next birthday, it is stated that a premium of £34 1s. 8d. per annum (less income tax rebate—present rate 2s. in the £) will, at the present rate of bonus, provide £1,842 at age sixty—a profit of £922; and his life has been assured for £1,000, plus accrued bonuses, during the whole period. At maturity the amount of £1,842 may be taken in cash, or alternatively, at present rates, would provide an annuity of £170.

For an additional annual premium of £2 5s. 4d. the following benefits may be included : In the event of a serious breakdown in health continuing for longer than six months, the person would receive an annuity of £100, in monthly instalments of £8 6s. 8d., during the remainder of the incapacity up to age 60. Payment of this benefit does not interfere with the sum assured under the life portion of the policy. No part of the premium is payable during any period a person may be in receipt of disablement benefit, but the policy continues to share in the profits. It is claimed that there is no other method of providing for the future and obtaining such an excellent investment with equal security and protection. Further particulars can be obtained from the Architects' Benevolent Society, 9 Conduit Street, London, W.1.

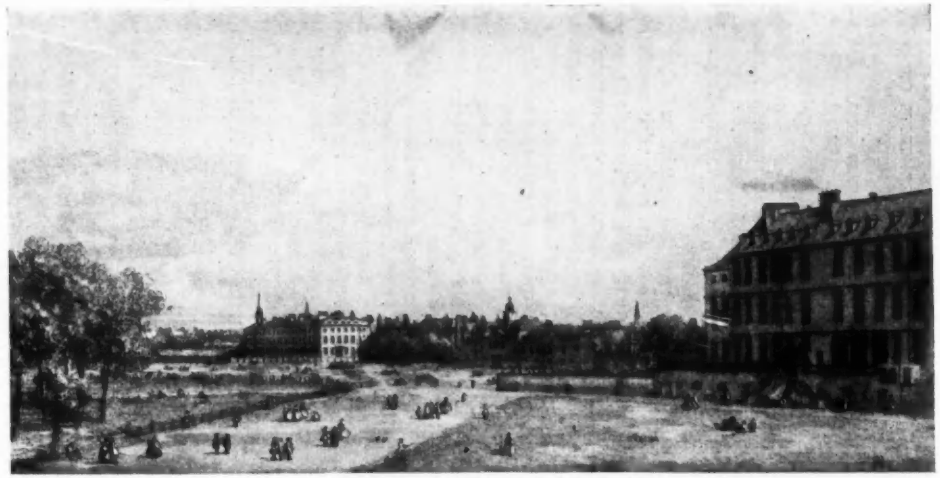
THE SKETCH CLUB

SEVENTH SESSION

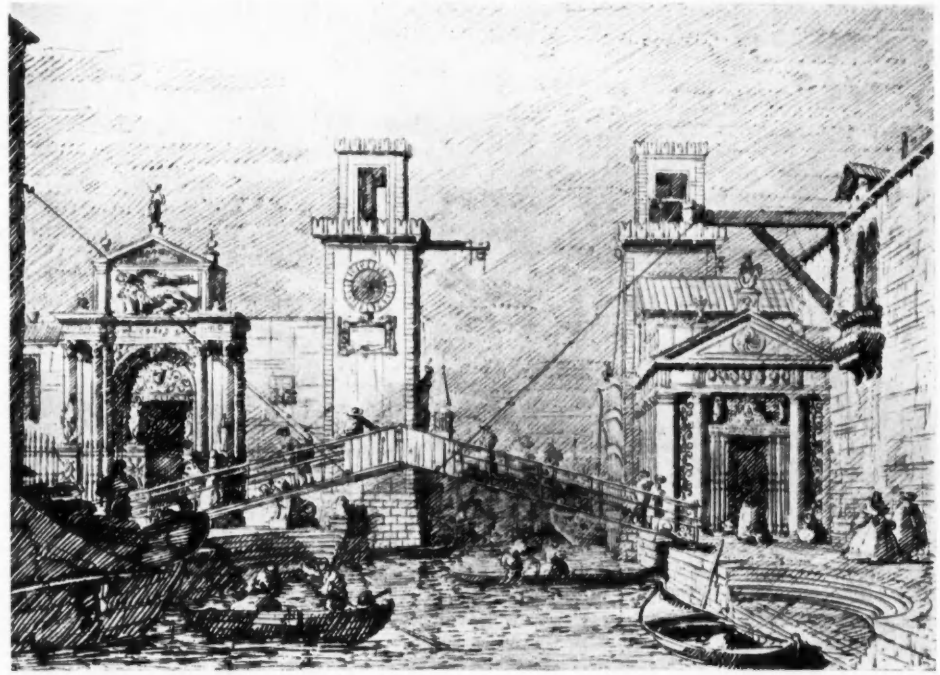
DRAWINGS BY CANALETTO



1. View of the Salute, Venice, between the column of St. Mark and the Libreria.
(Windsor Castle Collection, No. 7445. Pen. 232 × 182 mm.)



2. The Horse Guards Parade, London.
(British Museum Collection, No. 1868–3–28–305. Pen with wash. 345 × 689 mm.)



3. The Entrance to the Arsenal, Venice.
(Windsor Castle Collection, No. 7462. Pen. 271 × 376 mm.)

NOTES

1. THE view is seen as a whole; three buildings in clear sunshine, related by a certain "weight" which they have in common; each building is given its own fully-worked-out definition, but the touch is adapted to show the true relation of each to the other in space; it is a modeller's work.

2. THIS was drawn not later than 1749, as these old buildings of the Horse Guards were demolished in 1749–50. A soft hazy day, very English; the line used for the shapes of buildings, and the wash for the colour and tones, are so exquisitely united as to make this a poet's work.

3. A FINELY balanced composition, with the ropes of the bridge leading the eye through the two side masses to the centre tower. The hot sky is drawn with vigorous parallel lines like a rain of blows. The architecture is solid and convincing; the various planes are exactly given—the drawing of an engineer.

4. THIS is Canaletto's rendering of the English sketcher's favourite subject, a quaint small town, with grey weathered tower, irregular open space

solid and convincing; the various planes are exactly given—the drawing of an engineer.

3. The Entrance to the Arsenal, Venice.
(Windsor Castle Collection, No. 7462. Pen. 271 × 376 mm.)

4. THIS is Canaletto's rendering of the English sketcher's favourite subject, a quaint small town, with grey weathered tower, irregular open space, which he calls a piazza, the classical bit, the gables and cool shadows. Though it is more dignified, less picturesque to him than to us, still, this is a sketcher's work.

5. THE drawing is singular as having no figures; presumably the artist made this record of the perspective from a picture with which he was parting. In spite of that he became sufficiently absorbed to make, not only a record, but a thing of art, with so strong a sense of space that one can almost walk into the piazzetta—a draughtsman's work.

6. CANALETTO was doubtless in England during the completion of the bridge. The drawing is faultless, the soffit of the arch, the flatness of the water and the distance of the tiny spires and chimneys in the centre, are equally convincing; but the indicated colour of the arch and sky make this the work of a colourist.

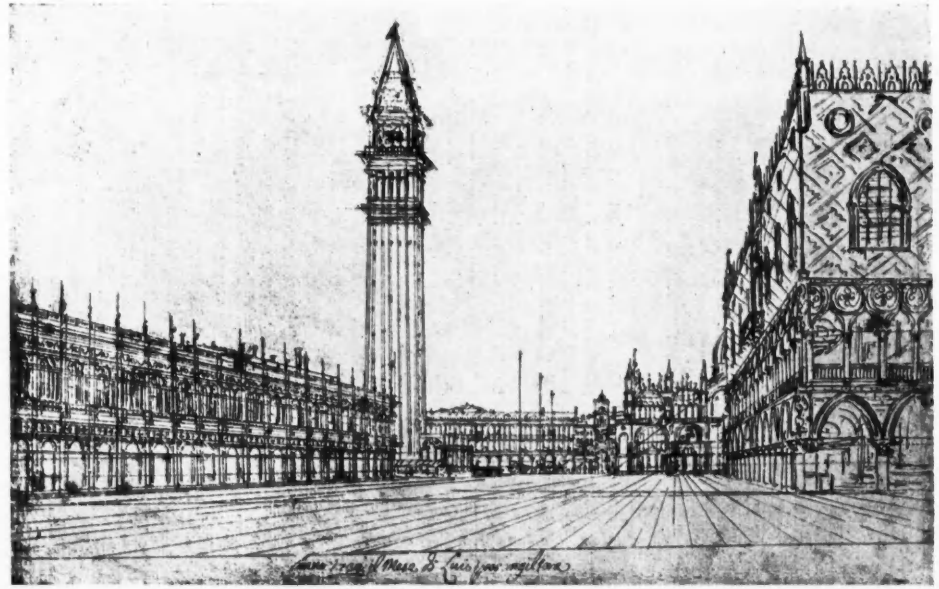
P. M. S.



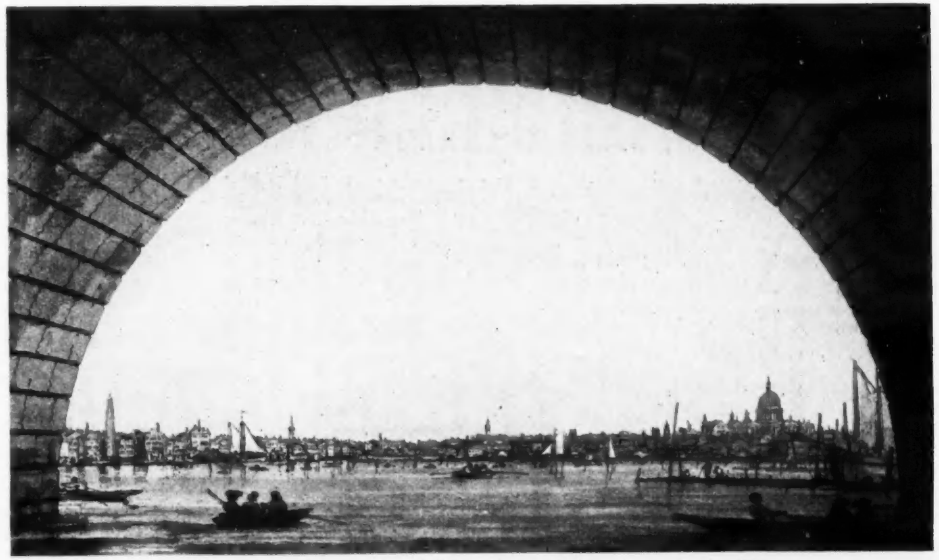
4. View of Warwick.
(British Museum Collection, No. 1900-11-12-1. Pen with wash.)

NO apology is due for presenting a "one-man" show devoted to the work of a master of the art and craft of sketching so universally recognized as Canaletto. Londoners have lately had two opportunities of studying his work—an exhibition held a year ago and the Italian Exhibition. The present small "loan collection" is made possible by the publication of a book by Detlev, Baron von Hadeln, from which the pictures are reproduced. A review of it, including some biographical facts, *appears on page 100.*

Members are reminded that there are still two Holiday Sketches Competitions open to them. *See page xvi.*



5. The Piazzetta, Venice.
(Darmstadt Print Room, ref. A.E. 2248. Pen. 258 × 548 mm.)



6. View through an arch of Westminster Bridge towards the City.
(Windsor Castle Collection, No. 7561. Pen with wash. 287 × 481 mm.)

LITERATURE

ESPECIALLY SPAIN

WE should all read this book again, for, containing some of Mr. Belloc's best writing, especially the chapters on Spain, it treats of the soul of architecture and its marriage with the earth. Each city is described with exact discrimination of its dignities, of its weight of years and of historical importance, of the burden of its beauty in respect to the place of its foundation, and to its art. Spain is strongest in the gravity of its appeal—" the grave, profound appeal of Spain, heavy with dignity," where " tradition is an influence . . . a vital memory."

But I think Mr. Belloc makes a mistake in belittling the Arab architecture as a thing of " weak plaster," for although parts of the Alhambra are stucco, the Gate of Justice and the outer walls of the castle, and much of their work elsewhere is of stone and brick; their design was often monumental, and the Giralda at Seville, if flimsily built, could not have survived its heavy Christian belfry. The Moors also were great irrigators, and their work of this sort must have increased vastly the fertility of the soil. Mr. Belloc is on surer ground when he says they were so nearly successful because they were so nearly European.

Mr. Warre's illustrations are some of the most sympathetic I have ever seen; he has no fireworks, but holds his pencil like a devotee's candle to each building.

P. M. STRATTON

Many Cities. By Hilaire Belloc. Second impression. Illustrated by Edmond L. Warre. London: Constable & Co., Ltd. Price 10s. 6d.

DRAWINGS BY CANALETTO

(*See "The Sketch Club," pages 98–9.*)

THIS beautiful book contains an introduction on the life and drawings, a *catalogue raisonné* of the latter, sixty-three full-page reproductions of the drawings, and nine of works by the pupil, Bernardo Bellotto, who is sometimes confused with him. Canaletto used the pen for all his drawings, and a brown ink; in some cases to the line was added a wash of grey ink.

The design of even the sketchiest of his works in this genre is always carefully studied, and the subjects are given a rich effect by the introduction of numerous figures in groups, by the alternating thick and thin lines, and by the ending of the lines with a spot, produced by a sudden stopping of the pen.

Antonio Canal was born on October 18, 1697. His father, a theatrical decorator, taught him his own profession. In 1719 Antonio went to Rome to draw views, his mind being possessed by the great architecture in the Italian cities. He returned to Venice about 1721 and there started his friendship with an Englishman, Joseph Smith, later consul, and a perfect patron. Smith bought innumerable drawings and pictures from Canaletto, as they were made; other Englishmen also approved the artist's work so much that he visited England in 1746, staying till 1750, and again in 1751, returning in 1755 to Venice, where he died in 1768.

Canaletto's favourite subject was architecture, from the grandest and best preserved palace to the obscurest ruin, and he frequently added to the picture of a building various other buildings from his imagination.

Canaletto's drawings are not merely studies for his pictures, those great rigid, conscientiously truthful, masterpieces, in which the personality of the artist has been kept disciplined, almost imprisoned: the drawings are a parallel activity produced by a different mood, a frame of mind in which the subject is instantly realized and almost instantaneously reproduced with the pen, or pen and brush, before the moment of intense joy has gone, and has been succeeded by the critical and doubting spirit.

To all architects who care for the delineation of buildings as real works of art in themselves, apart from the fortuitous advantage of site, use, and historical interest, Canaletto is the supreme draughtsman, and these reproductions will give great pleasure.

P. M. STRATTON

The Drawings of Antonio Canal called Canaletto. By Detlev, Baron von Hadeln. Trans. Campbell Dodgson. Duckworth and Co., Ltd. £3 3s. net.

WRITERS ON LIME AND CEMENT

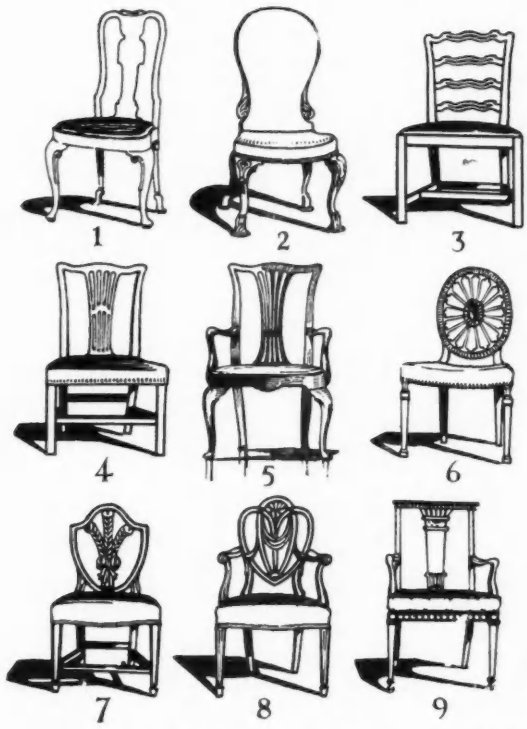
THERE is always a certain amount of interest in a survey of the literature on any subject, particularly when it can be traced back a couple of thousand years. Whether such a survey, however, has any real value to the practical man and technologist depends entirely upon his activities. The compiler of this volume has presented not so much a collection of technical information as a bibliography of literature dealing with lime and cement. The statement that Cato (234–149 B.C.) in his *De Re Rustica* dealt with the subject of lime and mortar is interesting, though not very informative to those who are not in a position to refer to the work in question, and the same applies to the references to contributions by Marcus Vitruvius Pollio and Caius Plinius Secundus. Beyond these references, no further literature is recorded by Mr. Spackman until the fifteenth century.

From that time onwards various writers discussed the question of lime and cement, though the number recorded prior to the year 1800 is only twenty-one. The next century was



From Many Cities] [*By Hilaire Belloc.*

Cathedral and Roman bridge, Salamanca.



1. *Walnut chair (1710) with cabriole legs.*
2. *Early Georgian development of the cabriole leg.*
3. *Mid-Georgian ladder-back chair.*
4 *and* 5. *Simple Chippendale types in mahogany.*
6. *Carved mahogany chair (an Adam type).*
7 *and* 8. *Hepplewhite types (late eighteenth century).*
9. *Inlaid mahogany armchair (Adam type).*

From Modern Home Furnishing.] [*By John Gloag.*

more prolific, and references to contributions by something like 300 writers are given in the present volume. It is impossible from the brief particulars given to form a correct estimate of the respective values of these contributions; but it is clear that until Smeaton, in 1791, described the building of the Eddystone Lighthouse, the vital importance of the clay constituent in lime was not realized. The experiments by Pasley in 1829 probably rank as the next contribution of real technical value, and his second book in 1838 presented information which is as true today as it was when first enunciated. General Pasley's comment in a discussion before the Institution of Civil Engineers in 1837, to the effect that Smeaton's researches were the only ones of value, is very largely confirmed by present-day information.

It is obvious from a perusal of the summaries of early literature that only during the last sixty or seventy years has any real advance been made in the understanding of the nature and chemistry of cement. Le Chatelier, in 1882, took a big step forward in his microscopic examination of thin slices of Portland cement clinker in polarized light, and his research on the constitution of hydraulic cements, published in Paris in 1887, unquestionably formed the starting point of much of the later valuable research work.

So far as the present volume is concerned, although it carries its chronological record up to 1928, it cannot be regarded as a compilation of technical information. It will doubtless be appreciated by students of the subject who have use for a comprehensive list of literature on lime and cement, and the brief indication of the nature of much of this literature which Mr. Spackman gives will probably be found helpful; but for practical purposes it is only necessary to make reference to the work of recent years.

The book, however, does stand as a monument to the compiler's industry in collecting the literature relating to this subject. Whatever real value it may have in the field of industrial activity would have been increased by a clear indication on the compiler's part as to the works which he considers most serviceable for the students today.

A. H. HAYES

Some Writers on Lime and Cement from Cato to the Present Time. By Charles Spackman, F.I.C. Cambridge: W. Heffer and Sons, Ltd. Price 15s. net.

MODERN HOME FURNISHING

THIS most admirable little book from Macmillan's Sixpenny Self-Help Library should be enjoyed by general readers as well as by those who intend to furnish a house.

The scope of the book is indicated by the opening sentence: "This book is concerned with the furnishing of small and moderately-sized houses and flats." The author, however, is better than his word, and gives advice on possible decorative schemes as well. Mr. Gloag is a well-known author for these subjects, and his guidance always valuable. A few chapter-headings show the ground covered: "Furnishing and what it implies"; "Buying Furniture"; "Old Furniture"; "Modern Furniture"; and chapters devoted to the various rooms.

After some discerning criticism of the commercial and the gimcrack, the principles underlying really good furniture are set out—and this sound furniture need not be expensive.

The latter part of the book deals with the furnishing and decoration of rooms, suggesting how to work out suitable modern schemes according to individual taste. The style is readable and pleasant, and the matter full of knowledge and practical wisdom, which will appeal alike to the experienced and the unpractised.

ELEANOR K. D. HUGHES

Modern Home Furnishing. By John Gloag. Macmillan's Sixpenny Self-Help Library. London: Macmillan & Co., Ltd., and Eyre and Spottiswoode (Publishers) Ltd. Price 6d.

LAW REPORTS

BLOCKS OF FLATS: QUESTION OF ASSESSMENT

Towle (H.M. Inspector of Taxes) v. *Improved Industrial Dwellings Co., Ltd. Before Mr. Justice Rowlatt*

THIS was an appeal by the Crown and a cross-appeal by the company in regard to the method of assessing blocks of flats owned by the Improved Industrial Dwellings Co., Ltd.

It appeared that prior to 1927 the flats had been assessed as separate flats, but for the year ending April 5, 1927, they had been assessed on a new basis in groups. The complaint of the company was that the assessment in groups deprived them of a large allowance for repairs which they would have been entitled to if the flats were assessed separately. The flats came within the purview of the Valuation (Metropolis) Act, 1869, and were assessed in the valuation lists for 1925 as separate flats. The gross values of the respective flats as several hereditaments were not liable to be reassessed for rating purposes during the quinquennial period ending 1930.

In the present case the assessment which the owners appealed against included all the flats in one group or block approached from the street by a separate entrance. The amount of the assessment had been arrived at by adding together the gross values shown in the valuation list of all the flats in the group covered by the assessment. The result was that the allowance for repairs was reduced and the company contended that no allowance for loss of rent could legally be claimed unless the whole of the flats in any group were empty at one and the same time.

The submission on behalf of the company was that each of the flats was a separate house and that the assessment in groups involved an alteration of the valuation lists.

On behalf of the Crown it was contended that they could assess the property in groups under Rule 8 (*c*) of No. 7 of Schedule A, which provided that the assessment should be made in respect of "any house or building let in different apartments or tenements and occupied by two or more persons severally. Any such house shall be assessed and charged as one entire house or tenement."

After long legal argument his lordship said the point was that the values of the component parts were to be taken and added for the purpose of arriving at one assessment. So far as he could see, Rule 8 had nothing to do with the valuation, but with the aggregation of assessments. He came to the conclusion that the company's argument was not sound, because when one had entered within the main walls and under the roof, one had entered the house or building, which included several tenements. He allowed the appeal of the Crown and dismissed the company's cross-appeal with costs.

RIGHTS OF DEMISE

Peech v. *Best and Others. Court of Appeal. Before Lords Justices Scrutton, Greer and Slesser*

THIS was an appeal by the defendants, Mr. J. T. Best, Mr. E. G. de Mestre and Mr. R. M. Freemantle, builder, of Twyford, Hants, against a judgment by Mr. Justice Avory at the Winchester Assizes, awarding the plaintiff, Mr. S. B. Peech, of Twyford Lodge, Twyford, £100 damages for infringement of certain sporting rights.

The defendant, Mr. Best, was the owner of an estate of about 700 acres near Winchester, which was primarily agricultural land. During the war a large part of it was used as a military camp. In July, 1921, Mr. Best demised to the plaintiff for fourteen years the exclusive right of shooting in, over and upon Hazeley Farm, Twyford, the lessor covenanting to preserve the sporting amenities as far as possible. Later Mr. Best sold twelve acres of the farm to Mr. de Mestre, for use as training stables, covenanting to indemnify Mr. de Mestre against claims for disturbance of sporting rights. Mr. Justice Avory held that there had been a substantial interference with the sporting rights and awarded plaintiff £100 damages.

The Court, after hearing the legal arguments, came to the conclusion that after the establishment of the training stable, it would be doubtful if there would be a game bird left within a quarter of a mile, and held that that constituted an infringement of the sporting right for which the tenant was entitled to damages. They dismissed the appeal with costs.

A.A. AND LONDON UNIVERSITY RESULTS

THE ARCHITECTURAL ASSOCIATION
34-36 Bedford Square, W.C.1.
SCHOLARSHIPS AND PRIZES

PUBLIC SCHOOL ENTRANCE SCHOLARSHIP (value £75 12s.):
Tibbits, E. V. (Tonbridge School).

Honourable Mention:
Gordon, H. I. (Hymers College, Hull).

OPEN ENTRANCE SCHOLARSHIP (value £75 12s.):
Charter, J. C. (Eltham College).

SCHOLARSHIP RENEWALS:
Powell, E. S. — Dillon, Miss C. J.
Wilson, R. — Cooper, A.

A.A. MEASURED DRAWINGS PRIZE (books—value £20):
Lock, C. M.

Honourable Mention:
Mayorcas, E.

A.A. ESSAY PRIZE (value £10 10s.):
Chitty, A. M.

FIRST YEAR COURSE:
"*Howard Colls*" *Travelling Studentship* (value £15 15s.):
Gray, Miss C.

2nd Prize (books, value £5 5s.):
Bunney, M. J. H.

Honourable Mentions:
White, Miss Blanco. — Graves, Miss L. J.
Crallan, H. P.

SECOND YEAR COURSE:
A.A. Travelling Studentship (value £26 5s.):
Wilson, R.

2nd Prize (books, value £10 10s.).
Cornu, P.

Honourable Mentions:
Banks, R. L. — Meadley, A. R.
Koh, C. Y. — Sprott, F.
Gick, Miss M.

THIRD YEAR COURSE:
A.A. Travelling Studentship (value £31 10s.):
Crowley, Miss M.

Holloway Scholarship (*tenable for two years*) (value £300):
Drake, L. A.

2nd Prize (books, value £10 10s.):
Ashton, R.

Honourable Mentions:
Mayorcas, E. — Bickerton, Miss B.
Kent, E. C. — Westwood, B. P.

FOURTH YEAR COURSE:
R.I.B.A. "*Henry Jarvis*" *Scholarship* (*for construction*) (value £50):
McDonald, D. C. — Nunn, A. V.

Year Prize (books, value £10 10s.):
Gibson, A. G.

"*Alex Stanhope Forbes*" *Prize* (*for the best colour work during the year*) (books, value £5):
Cutler, D. G.

Honourable Mentions:
Stark, D. R. — Laidler, G. G.
Ledeboer, Miss J. G.

FIFTH YEAR COURSE:
A.A. Travelling Studentship (value £50):
Nisbet, J. V.

"*Henry Florence*" *Travelling Studentship* (value £50):
Scott, R. D.

Honourable Mentions:
Linfield, G. R. — Porter, H. G.
Luke, H. S. — Roth, S. H. J.

The following students have qualified for exemption from the R.I.B.A. Intermediate Examination:

Ashton, R. — Brandon-Jones, J. B.
Benjamin, Miss R. E. — Brett, R. K.
Bickerton, Miss B. — Cooper, A.
Bishop, H. G. — Crowley, Miss M.
Brandt, J. B. — Darby, J. P.
Drake, L. A. — March, S. G. R.
Dugdale, M. A. S. — Maw, Miss Z.
Farrow, J. W. — Mayorcas, E.
Gascoigne, Miss A. R. — McGrenera, W. J.
Haigh, M. W. — Milner, D. L.
Hebeler, B. A. — Ram Sinh, K.
Heymann, H. B. — Richards, C. A.
Hutcheson, W. R. — Ryder, Miss M.
Hicks, J. F. — Rowlands, Miss B.
Jackson, Miss P. D. — Searle, C. J.
Kent, E. C. — Skinner, R. T. F.
Lambert, S. G. — Tripe, A. C.
MacCann, J. P. — Westwood, B. P.
Mallows, E. W. N.

On satisfactory completion of the five-year School Course, and a period of six months' office experience, the following students have qualified for the Diploma:

Girard, A. H. (*Honours—Decoration*).
Beveridge, G. R. (*Honours—Construction*).
Nisbet, J. V. (*Honours—General Work*).
Blades, Miss B. A. — Playne, E.
Harris, L. D. — Penn, W. H.
Linfield, G. R. — Randall, G. F.
Lewis, G. N. — Minns, Mrs. M.
Luke, H. S. — Roth, S. H. J.
Lavers, R. S. — Scott, R. D.
Parr, J. W.

Medal presented annually by the Société des Architectes Diplômés par le Gouvernement, Paris, to the best Diploma student of the Year:
Nisbet, J. V.

Royal West of England Academy School of Architecture (Affiliated with the Architectural Association):
Prize in Design (value £5 5s.):
Taylor, A. R.

THE BARTLETT SCHOOL OF ARCHITECTURE

The following awards have been made at the Bartlett School of Architecture, University College, London:

Entrance Exhibitions: 1. W. B. Galloway, Whitgift Middle School, Croydon: 2. A. E. Rogers, The Royal Grammar School, Guildford.

Donaldson Silver Medal, E. F. Starling. (Subject to confirmation by the R.I.B.A.).

Herbert Batsford Prize: L. T. Wilkins.

Ronald Jones Prizes: Renaissance Architecture, J. C. B. Price. Mediæval Architecture, P. B. Dunham.

"The Architects' Journal" Prize (for the best final design produced in the day school by a fourth year degree or diploma student): D. A. Stewart.

"The Builder" Prizes (for the best sets of measured drawings of old work): Senior, D. A. Stewart. Junior, A. P. Ciregna and F. E. Kerswill (equal).

"Building" Prize: E. L. W. Davies and D. A. Stewart (equal).

Neal Prize: Subject: A Departmental Store, B. Spence and H. F. Hoar (equal).

The following have obtained the Certificate in Architecture:

P. S. Antonio — R. L. de Wet
Olive G. V. Briggs — F. A. Howard
H. A. E. Burton — J. K. G. Sarjeant
A. P. Ciregna — Evelyn S. A. Walston
S. A. Comben — A. G. Wise

The following have obtained the Certificate in Town Planning:

F. H. Carr — H. G. M. May
K. F. Giraud — Beatrix J. Phillipson
Jessie M. Greig — H. Sandford

Company Meeting.

RUBBER ROADWAYS

The annual general meeting of Rubber Roadways Limited was held on Monday, July 7, at the registered office, 2, 3 and 4 Idol Lane, Eastcheap, London, E.C.

Sir Stanley Bois (chairman of the company), who presided, said: It is with some satisfaction that your board are able to record certain definite progress in the activities of the company. I have on previous occasions stressed the fact that development of new uses of rubber, is, unfortunately for producers, extremely slow. Rubber roadways are no exception in this respect, but the progress made has been definite and encouraging. Your company, in spite of many difficulties and set-backs, has carried this important use of rubber through experimental stages by means of subsidies and grants, and the demonstration areas which have been laid have proved that a rubber roadway is a technical success. The initial cost has been a stumbling-block, but your board have never lost faith in their view that this almost unsuperable obstacle will eventually be overcome.

A few years ago first cost was visualized at the high figure of £5 per square yard. Last year a scheme of finance was propounded on a basis of £4 per square yard. I am now able to state that, as a result of intensive experiment and investigation, one firm has found it possible to market a rubber paving block at a price of between £2 10s. and £3.

You will no doubt have observed that in the House of Commons the other day the Minister of Transport stated that, as the cost of rubber paving blocks very substantially exceeds that of the more expensive types of other suitable paving materials, he does not see his way to urge local authorities to use this particular material. I venture to suggest that this statement ignores the whole argument in favour of rubber because, when dealing with the initial cost of any form of road surfacing, regard must be paid to the merits of each type and the ultimate cost.

There is no other material to compare with rubber, which possesses such anti-abrasive and shock-absorbing properties. Further, there is no doubt that the advantages of rubber paving, if expressed in terms of pounds, shillings, and pence, mean a large saving in maintenance costs which, taken over a period of years, would more than counterbalance the higher initial cost. The increasing strain of modern road transport demands a more efficient road surface, and I can think of no other material than rubber to fill the bill.

Announcement

The directors of the Midland Bank Limited announce an interim dividend for the half-year ended June 30 last at the rate of 18 per cent. per annum less income tax, payable on July 15. The dividend for the corresponding period of 1929 was at the same rate.

THE ARCHITECTS' DIARY

WEDNESDAY, JULY 16

R.I.B.A., 9 Conduit Street, W.1. Exhibition of models, masonry specimens, drawings and photographs of St. Paul's Cathedral. 10 a.m. to 8 p.m. (Saturdays, 5 p.m.) **10 a.m.**

ARCHITECTURAL ASSOCIATION, 36 Bedford Square, W.C.1. (1) Annual Excursion to Denmark and Sweden, returning to London on July 29. Particulars of the tour, etc., are obtainable from F. R. Yerbury, Secretary, Architectural Association. (2) Annual Exhibition of Students' Work open daily from 10 a.m. to 6 p.m., until August 1. **10 a.m.**

ROYAL ACADEMY, Burlington House, S.W. Summer Exhibition open to the public. Open until September. **10 a.m.**

LIVERPOOL SCHOOL OF ARCHITECTURE. At the Walker Art Gallery, Liverpool, Annual Exhibition of Architectural Drawings, until July 19, 10 a.m. to 6 p.m. **10 a.m.**

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. **10 a.m.**

KINGSTON-UPON-THAMES PUBLIC BATHS COMPETITION. Exhibition of designs at the Tiffin Boys' School (old building) until July 23. 2 p.m. to 8 p.m. **2 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Exhibition of Egyptian and Palestinian Antiquities. Until July 26. 10 a.m. to 5 p.m. (July 15 and 25, 6.30 to 8 p.m.) **10 a.m.**

INTERNATIONAL CONFERENCE of Union Internationale des Villes et Pouvoirs Locaux. At Liége. July 16–17.

THURSDAY, JULY 17

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Letchworth Garden City by motor coach, leaving Lancaster House at 1.30 p.m. Price of tickets, 5s. The First Garden City, Ltd., have invited the party to tea at the Institute, Letchworth. **1.30 p.m.**

COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND. At R.I.B.A., 9 Conduit Street, W.1. "Control of Floods in the Thames Valley." By A. B. Buckley, O.B.E., M.INST.C.E. The Chair will be occupied by The Earl of Mayo. **3.30 p.m.**

FRIDAY, JULY 18

R.I.B.A., 9 Conduit Street, W.1. Finance and Housing Committee Meeting. **4.30 p.m.**

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Special Lecture at the R.I.B.A. Galleries, 9 Conduit Street, W.1, on "Modern Architecture of Europe and America." By Maurice E. Webb, D.S.O., M.C., F.R.I.B.A., and Howard Robertson, F.R.I.B.A., S.A.D.G. Chairman: Carmichael Thomas, Chairman of Council, The London Society **6.30 p.m.**

BRITISH STEELWORK ASSOCIATION. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "Skyscrapers in America." By G. E. J. Pistor. 5.30 p.m. (Tea will be served at 4.45 p.m.) **5.30 p.m.**

INTERNATIONAL CONFERENCE of Union Internationale des Villes et Pouvoirs Locaux. At Antwerp. July 18–19.

SATURDAY, JULY 19

Sunrise, 5.4 a.m. Sunset, 9.8 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Indian Section: "Architecture." By Miss M. Chamot. **3 p.m.**

MONDAY, JULY 21

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "English Seventeenth-Century Furniture." 3 p.m. Both lectures by L. O. Faraker. **12 noon.**

R.I.B.A., 9 Conduit Street, W.1. Council Meeting. **4.30 p.m.**

BOARD OF EDUCATION REFRESHER COURSE FOR TEACHERS IN ART SCHOOLS. At the Victoria and Albert Museum, South Kensington, S.W.7. "Craftwork as an Element of Education." Inaugural Address by the Rt. Hon. Lord Riddell. Chairman: Sir Henry Richards, C.B., LL.D. (Senior Chief Inspector of Schools).

TUESDAY, JULY 22

TOWER OF LONDON, E.C.3. "The Tower in the Middle Ages." By Allen S. Walker. **11 a.m.**

WEDNESDAY, JULY 23

R.I.B.A., 9 Conduit Street, W.1. Tite Prize Final Competition.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the New Whitelands Training College, Putney Hill, S.W., designed by Sir Giles Gilbert Scott, who, with Lady Scott, will entertain members to tea after the visit. **3 p.m.**

BOARD OF EDUCATION REFRESHER COURSE FOR TEACHERS IN ART SCHOOLS. At the Victoria and Albert Museum, South Kensington, S.W.7.

A discussion on "Is Painting a Craft?" will be opened by Mr. Percival Tudor-Hart. Capt. Claude Flight, R.B.A., will reply. Chairman: Mr. Charles Marriott.

THURSDAY, JULY 24

R.I.B.A., 9 Conduit Street, W.1. Victory Scholarship Final Scholarship.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Eighteenth-Century Furniture." By L. O. Faraker. 12 noon. "Italian Furniture." By Miss M. Chamot. **7 p.m.**

BRITISH MUSEUM, W.C.1. "Origins of Architecture—II. Roman, etc." By Cecil Hallett, B.A., F.S.A. **12 noon.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Light and Colour." By S. H. Groom, B.A. **12 noon.**

FRIDAY, JULY 25

R.I.B.A., 9 Conduit Street, W.1. Visit to U.S.A. Arrival of S.S. "Ascania" at Plymouth.

SATURDAY, JULY 26

Sunrise, 5.13 a.m. Sunset, 8.59 p.m.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Visits to Leeds Castle, Chilham or Bodiam, etc., organized by the Canterbury and Tunbridge Wells Chapters. Particulars of the visits are obtainable from the Hon. Secretaries of the Chapters.

MONDAY, JULY 28

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Decoration." By Miss M. Chamot. **3 p.m.**

TUESDAY, JULY 29

TOWER OF LONDON, E.C.3. "The Tower in Tudor Times." By Allen S. Walker. **11 a.m.**

WEDNESDAY, JULY 30

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "The Weather." By S. H. Groom, B.A. (Illustrated by Lantern Slides.) **3 p.m.**

THURSDAY, JULY 31

BOARD OF EDUCATION REFRESHER COURSE FOR TEACHERS IN ART SCHOOLS. At the Victoria and Albert Museum, South Kensington, S.W.7.

"Are Art Schools assisting Industry?" By Henry G. Dowling, F.R.S.A., F.I.B.D., of John Line and Sons. Chairman: Alfred Shuttleworth, A.R.C.A. (Secretary of the National Society of Art Masters).

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Alfred Stevens." 3 p.m. "Modern Sculpture." Both lectures by Miss M. Chamot. **7 p.m.**

LUTON TOWN HALL, DUDLEY SCHOOL and SOUTHPORT MARKET HALL COMPETITIONS. Latest date for submission of designs.

SATURDAY, AUGUST 2

Sunrise, 5.24 a.m. Sunset, 8.48 p.m.

SATURDAY, AUGUST 9

Sunrise, 5.35 a.m. Sunset, 8.35 p.m.

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By L. O. Faraker. **12 noon.**

SATURDAY, AUGUST 16

Sunrise, 5.46 a.m. Sunset, 8.22 p.m.

THURSDAY, AUGUST 21

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By Miss M. Chamot. **3 p.m.**

SATURDAY, AUGUST 23

Sunrise, 5.56 a.m. Sunset, 8.8. p.m.

SATURDAY, AUGUST 30

Sunrise, 6.8 a.m. Sunset, 7.53 p.m.

MONDAY, SEPTEMBER 1

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. September 1 to 6.

SATURDAY, SEPTEMBER 6

Sunrise, 6.19 a.m. Sunset, 7.37 p.m.

XII. INTERNATIONAL CONGRESS OF ARCHITECTS. In Budapest. September 6 to 13. Opening of International Exhibition of Architectural Designs in the Picture Gallery of the Hungarian Scientific Academy. **10 a.m.**

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition in the R.I.B.A. Galleries of Drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.) **10 a.m.**

IN PARLIAMENT

[BY OUR PARLIAMENTARY REPRESENTATIVE]

The Government's Slum Bill

THE report and third reading stages of the Housing (No. 2) Bill have been completed in the House of Commons, and the Bill will now have to go before the House of Lords. There is no likelihood of the Upper House dealing at all drastically with these slum clearance proposals, and the Bill should, therefore, become law in a very short time.

During the report stage, Mr. Greenwood, the Minister of Health, moved the following new clause: "A local authority, in preparing any proposals for the provision of houses, or in taking any action under this or the principal Act, shall have regard to the natural amenities of the locality and the desirability of preserving existing works of architectural, historic, or artistic interest, and shall comply with such directions, if any, in that behalf as may be given to them by the Minister." He explained that his object was to meet a point raised in Committee to ensure the preservation of buildings of historic or artistic interest. The clause would mean that local authorities would be free to act as they thought best, but that people interested in the preservation of these buildings would be able to take action and approach the Minister of Health, who could then make such regulations as he thought fit.

The new clause was welcomed by members of all parties. The general opinion of the House was, perhaps, best voiced by Sir Tudor Walters, who said that, with all his enthusiasm for housing, he did not want this particular period of English history to stamp itself and its building record with some of the ugliest productions in history. There was grave danger, in providing houses, of destroying ancient monuments and houses of historical interest which it would be quite easy to preserve. Do not let them combine vandalism with their enthusiasm for housing. Let them have artistic taste and regard for amenities, as well as for the need of working-class houses.

The new clause was added to the Bill.

The dimensions of the houses to be built for rehousing purposes gave rise to a good deal of discussion. Mr. Jowett moved a new clause to provide that the dimensions of these houses should not be less than the minimum requirements laid down in the Housing Act of 1923.

Mr. Greenwood at first resisted the amendment, but, yielding to pressure from all parts of the House, he agreed to deal with the matter in the House of Lords, and to provide that in all these slum clearance schemes houses to be built would conform to the standards of the Acts of 1923 and 1924.

On this assurance, the new clause was withdrawn.

On the third reading, Sir Kingsley Wood expressed the fear that under the Bill there would be very little building, and very little mitigation of the unemployment in the building trade this year.

Mr. Greenwood, in his reply, did not pretend that slums which had been in the making for 400 years would be destroyed in four months, but the Bill, he claimed, was the first comprehensive measure to deal with this particular problem in a new and more effective way.

Mr. E. D. Simon, for the Liberals, welcomed the Bill as far as it went. In his opinion, however, it was a timid and half-hearted measure.

The third reading was agreed to without a division.

State-assisted Houses

At question-time Dr. Vernon Davies asked the Minister of Health if he could give any estimate of the percentage of the cost per house to be borne by local authorities under the Housing (No. 2) Bill at the present level of building prices.

Miss Lawrence said that at the present level of average building prices a contribution of £3 15s. per house for forty years was equivalent to rather more than 16 per cent. of the total cost per house.

Cost of Production in Germany

Mr. A. M. Samuel asked the Secretary to the Overseas Trade Department whether he would compile a list of the cuts in the principal competitive export selling prices made by German industrialists in order to reduce German unemployment, and circulate the information among British industrialists as soon as possible.

Mr. Gillett (Secretary, Overseas Trade Department): I assume that the hon. Member has in mind the recent arbitration award in the German iron and steel industry which has resulted in a reduction of wages and prices. The new scale of inland selling prices for steel has been reported to my Department and has already appeared in the Press. Any information that may become available as to adjustments of export prices in this and other trades will be communicated to the British interests concerned.

Mr. Samuel: Is the hon. gentleman not aware that in Germany the producers are making a general cut—quite apart from iron and steel—embodying the fall in the price of raw materials, and the general reduction in the cost of production in Germany?

Mr. Gillett: I understand that the cases to which the hon. gentleman refers do not relate to the export trade, but are confined to the home trade.

Mr. Samuel: Will the hon. gentleman indicate where I refer to any particular cases? I refer to the whole range of prices.

COMPETITIONS OPEN

July 31.—The Luton Town Council invites architects to submit designs for the proposed town hall, which is to be built on the site of the old town hall, at an approximate cost of £250,000. Assessor: Sir Brumwell Thomas, F.R.I.B.A. Premiums: £500, £300, £200 and £100. Particulars obtainable from W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s. Latest date for submission of designs: July 31.

July 31.—The Dudley Education Authority invites architects having an office within a radius of fifteen miles of Dudley to submit competitive designs for a Council school to accommodate 320 children, to be erected on the Brewery Fields estate; also a school for 400 children on the Priory estate. Assessor: Herbert T. Buckland, F.R.I.B.A. Premiums: £150, £100, and £50. Applications for conditions of the competition, etc., should have been made to J. Whaley, Director of Education, Education Offices, St. James's Road, Dudley, by April 30. Deposit £1 1s. Latest date for submission of designs: July 31.

July 31.—The Southport Borough Council invites local architects to submit designs for a new Market Hall. Assessor: Percy Worthington, F.R.I.B.A. Premiums: £100, £50, £35, and £20. The hall is to contain fifty-six stalls and a manager's office. The site is 191 ft. by 95 ft. The estimated cost is £13,500. Conditions obtainable from the Town Clerk, Municipal Buildings, Southport. Latest date for submission of designs: July 31.

August 30.—The Carlisle Corporation invites British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. The site was previously occupied by the Prison. The total length of the frontage is approximately 358 ft. Assessor: Francis Jones, F.R.I.B.A. Premiums: £300, £200, and £100. Particulars of the competition, etc., may be obtained from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

September 1.—The Bangor (Co. Down) Borough Council invites architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor: Professor Patrick Abercrombie, F.R.I.B.A. Premiums: £150 and £50 for first and second places, respectively. Copies of the conditions and plans will be forwarded on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs: September 1.

September 30.—The Isle of Man Education Authority invites architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

No date.—The General Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums: £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2.

TRADE NOTES

Messrs. Pharaoh Gane & Co., Ltd., are the sole agents in this country and the Irish Free State for the two new waterproof and insulating building boards, Thermasote and Homasite, placed recently upon the British market by the Pantasote Co., Inc., of New York City.

Thermasote is intended primarily for all kinds of interior work: shops, offices, garages, sports pavilions, bungalows, etc. One of its most popular uses is for the panelling of walls, when it is nailed to the studding, the joints being covered with wood battens. The finished work can be left untreated or stained or painted. Another widely known use for the material is that of a plaster base. For this purpose it is applied with wire mesh over joints, thus forming a key, after which the plastering is done in the usual way, without the use of laths. Many other uses readily occur to mind, such as for ceilings, underflooring and partitions. Many claims are made for the sound-deadening, heat-resisting, waterproofing and other properties of the material.

Homasite may be regarded as the corollary of Thermasote. It has similar weather-resisting and other properties, but is manufactured particularly for exterior work. It is thick, dense and rigid, and the large sheets in which it is made eliminate joints in most jobs. Nails, it is claimed, can be driven into it, without fear of fracture and splits.

All the buildings for the base headquarters of the Byrd Expedition in the Antarctic are covered entirely on the outside with Homasite, and the interior walls and roofs are lined with Thermasote. The Pantasote Co. have received a radiogram from the expedition stating that the boards are still in good condition, and that the headquarters are comfortable all winter.

At the offices of Messrs. Pharaoh Gane & Co., Ltd., 9-13 King William Street, London, E.C.4, the managing agents for the United Kingdom and Ireland, may be seen a large number of photographs showing the uses to which the boards may be applied, and of the various public buildings, hospitals, offices and dwelling-houses in which the material predominates.

*

Messrs. Dorman Long and Co., Ltd., have secured the following contracts: Claridge's Hotel, London. Supply and erection of approximately 1,100 tons of structural steel. New building to house the staffs of Cables and Wireless, Ltd., and of Imperial and International Communications, Ltd., Victoria Embankment. Supply and erection of approximately 4,300 tons of structural steelwork, British throughout, manufactured and fabricated at the works. Rebuilding of Lever House, Victoria Embankment. Supply and erection of approximately 4,500 tons of structural steel to be used in the rebuilding of Lever House.

*

The famous marble floor of St. Mark's, Venice, has been reproduced in rubber for Glasthule Church, Co. Dublin. Samples of the actual marbles were sent to the Macinlop works in Manchester, where the reproduction was accomplished. The architect for the work at Glasthule Church was Mr. J. J. Robinson, F.R.I.A.I., M.S.A., P.P.A.A.I.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

18416. Brereton, C. Material for floor covering, roofing, etc. June 16.
18370. Handl, E., and Syndicaat Handl. Construction of reinforced ceilings. June 16.
18593. Pittsburgh Steel Co. Reinforced structures. June 18.
19022. Procter, J. W., and Ratcliffe, C.W.C. Building block. June 21.
19132. Akerman, W. S. Roofing tiles. June 23.
19149. Allart, G. Window catch. June 24.
19337. Baker Perkins, Ltd. Heating systems. June 25.
19696. Barnes, W. H. Chimney cowls. June 28.
19460. Baumann, A. Production of artificial marble. June 26.

SPECIFICATIONS PUBLISHED

330609. Morriss, F. E. Collapsible building structures.
330682 Hibbard, S. J. Building blocks.
330760. MacKenzie, K. D., and McEwan, J. Corrugated sheet-metal tubular structures.
330874. Cowper, E. O. Floors, foundations, roads and ways, sports grounds, and the like, and method of laying rubber-carpeting upon same.
306134. Lafon, P. Construction elements of artificial stone and the like.
330951. Dehn, F. B. (Paraffine Companies Inc.). Surfacing for concrete floors.
330880. Goodyear, C. W., Clark, F. H., and Bettles, J. W. E. Stair-treads, steps, rungs, platforms, and the like, and the manufacture thereof.
331001. Bridges, F. S. Gypsum fire-proofing blocks.

PUBLICATIONS RECEIVED

Building Science Abstracts. Vol. III. (New Series) No. 5, May, 1930, Abstracts Nos. 902-1121. London: H.M. Stationery Office, 1930. Price 9d. net.

Rural Industries. Summer Number, 1930. No. 19. London: The Rural Industries Bureau. Price 2d.

Gas: The Modern Fuel. By Philip G. G. Moon. London: The British Commercial Gas Association.

A Decay of Sitka Spruce Timber, caused by Trametes Serialis, Fr.: A Cultural Study of the Fungus. Department of Scientific and Industrial Research: Forest Products Research. Bulletin No. 4. Price 2s. net.

How to Form a Company. By Herbert W. Jordan. Nineteenth Edition. London: Jordan and Sons, Limited. Price 2s. 6d., by post 2s. 9d.

Reflection from Road Surfaces. By A. K. Taylor, A.C.G.I., M.I.E.E. Department of Scientific and Industrial Research. Technical Paper No. 9. London: H.M. Stationery Office, 1930. Price 6d. net.

Report of the Empire Marketing Board: May, 1929, to May, 1930. London: H.M. Stationery Office. Price 1s. net.

Economic Conditions in Belgium in 1929. By N. S. Reyntiens, O.B.E., Commercial Secretary, British Embassy, Brussels. Issued by Department of Overseas Trade. London: H.M. Stationery Office. Price, 3s. 8d.

Touring London with W. Teignmouth Shore. London: B. T. Batsford, Ltd. Price, 4s. net.

Little-known England. By Harold D. Eberlein. London: B. T. Batsford, Ltd. Price, 12s. 6d. net.

Moderne Villa 's en Landeuzen in Europa en Amerika. By J. G. Wattjes. Amsterdam (Holland): N.V. Uitgevers-Maatschappij "Kosmos." Price Fl. 17.50.

KINGSLEY HALL

Following is a list of the specialists, general contractors and some of the sub-contractors for Kingsley Hall, Powis Road, Bow, illustrations of which appear on pages 79-81. General contractors, Limpus and Son, Kingston Hill. Clerk of works, Mr. A. W. Howard. Sub-contractors: Ames and Finnis, bricks; A. D. Dawnay and Sons, Ltd., structural steel; Stevens and Adams, wood-block flooring; Rosser and Russell, Ltd., heating; Grierson, Ltd., electric wiring; Osler and Faraday, electric light fixtures; Pontifex and Son, Ltd., sanitary fittings; Welstead, Ltd., casements; Bainbridge Reynolds, metalwork; Martin van Straaten & Co., tiling.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 8½	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Bursiem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6

DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.

LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. 6 *in., per ft.*	0	1	3
DO. 9 *in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. 6 *in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. 9 *in. per roll*	0	4	9
DO. 14 *in. per roll*	0	7	6
DO. 18 *in. per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1-3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, six rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. per hour; SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super.	0	11	0
York templates sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			

HOISTING and setting stone, per ft. cube	£0	2	2

DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.

DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6

RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	5

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies				£14	0	0
Countess				23	0	0
Duchess				32	10	0
Old Delabole	*Med. Grey*			*Med. Green*		
24 in. × 12 in.	£42	11	3	£45	1	0
20 in. × 10 in.	31	4	3	33	0	6
16 in. × 10 in.	20	18	0	22	4	9
14 in. × 8 in.	12	1	0	12	16	3
Green Randoms, per ton				8	3	9
Grey-green do., per ton				7	3	9
Green peggies, 12 in. to 8 in. long, per ton				5	13	9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey			Med. Green		
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18s. 0d. per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO. *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	4
DO. *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.* 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P. 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1½ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	6	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ½ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ⅛ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes fixed, per ft. sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	0	9
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	1½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . . from 3*d.* to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

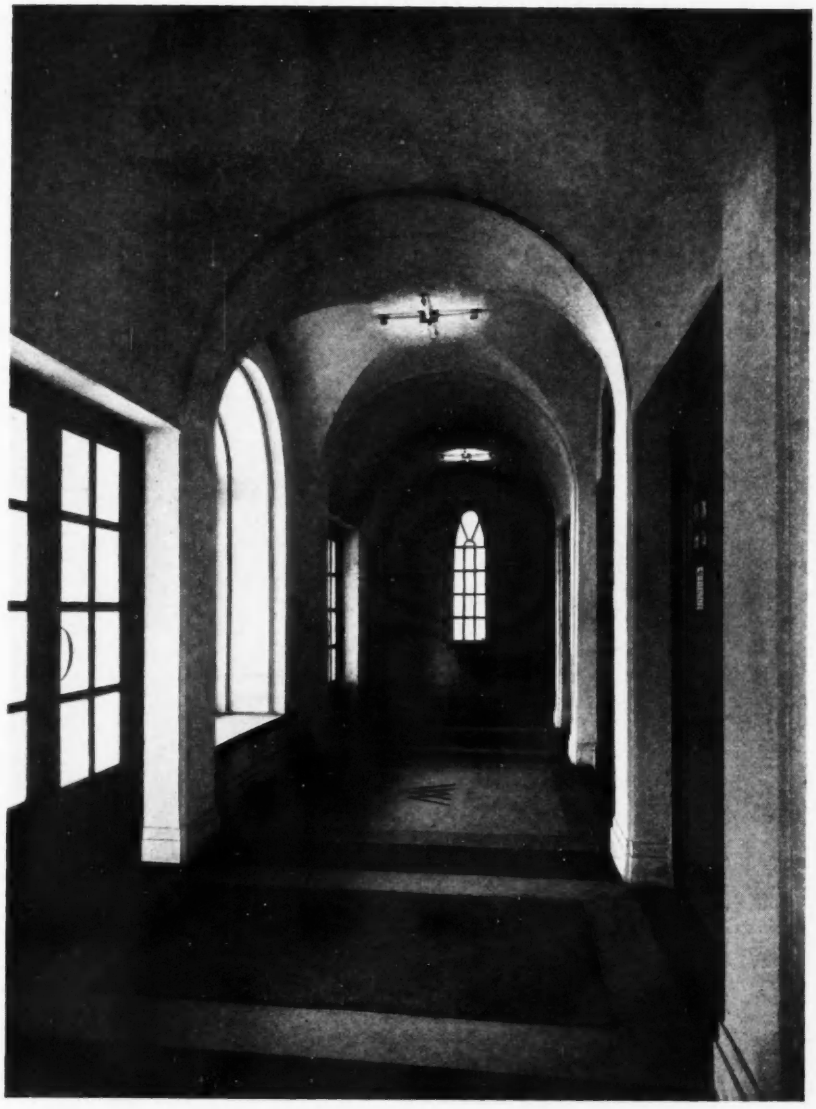
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2½	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	6½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	13½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:

A WEEKLY SERIES



NARTHEX OF THE FIRST CLUBLAND CHURCH, WALWORTH, S.E.

DESIGNED BY EDWARD MAUFE

THIS cell, which acts as a buffer between the body of the church and the open porch at the east end, has a barrel-vaulted ceiling with intersecting barrels in three of its five bays, which thus become square, groined, vaulted compartments. Looking at the east wall (to the left, in the photograph), the two outer pairs of doors give on to gallery staircases, while the two centre pairs, which are glazed, give, together with the central semicircular-headed window placed between them, on to the porch. The three pairs of doors in the west wall, all of which are in oak, give access to the church.

The narthex is finished throughout in a rough plaster, with a skirting of Portland stone. The cross-strip lighting fitting will be noticed in the photograph, which also shows the treatment of the cork composition flooring and the generous mats placed on the through axes.

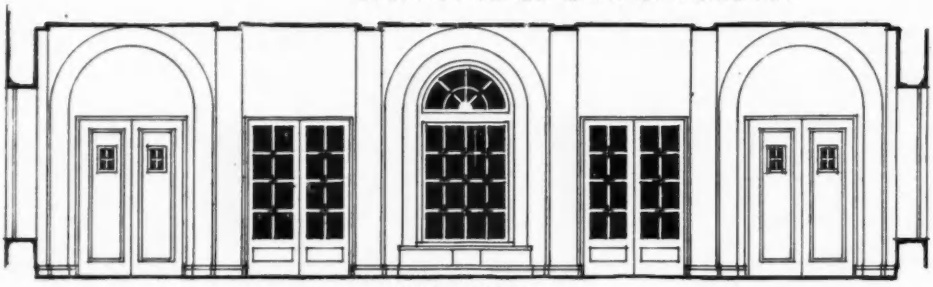
The arrow on the plan reproduced overleaf shows the view-point of the photograph.

The drawing may be read with architect's scales—$\frac{1}{8}$ in.; and 6in.=1 ft.

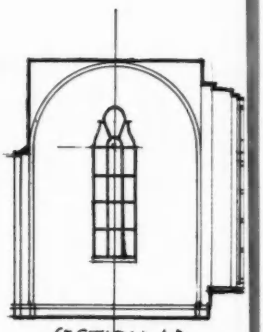
FIRST CLUBLAND CHURCH LONDON S·E·5

THE NARTHEX

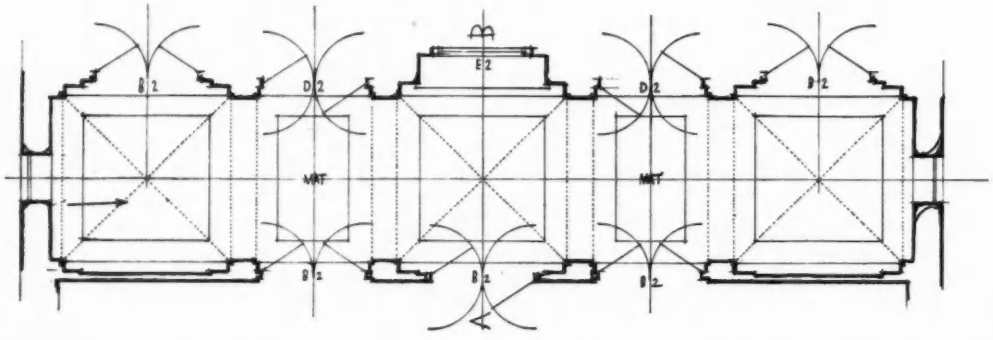
EIGHTH SCALE & HALF FULL SIZE

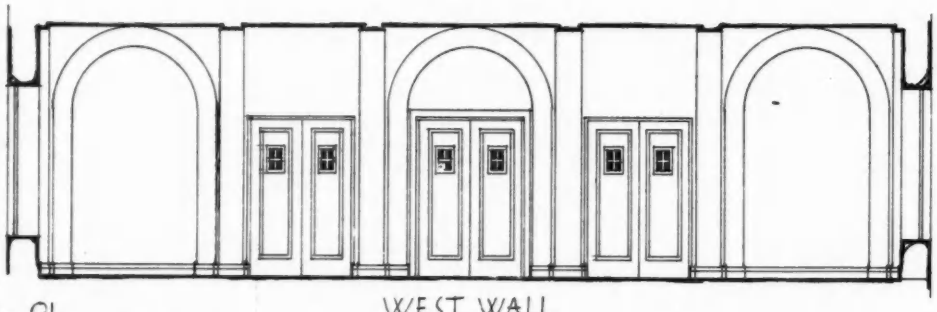


EAST WALL

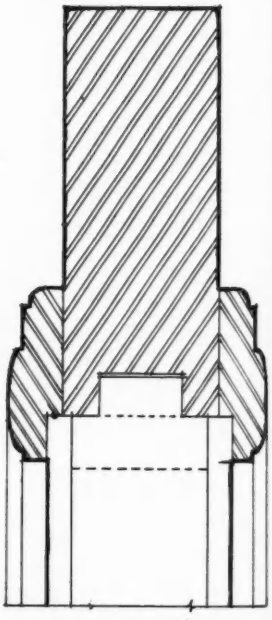


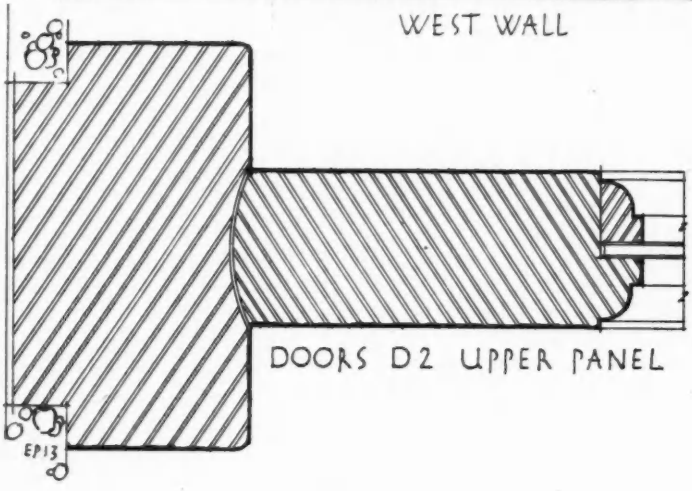
SECTION AB



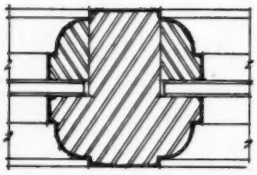


WEST WALL



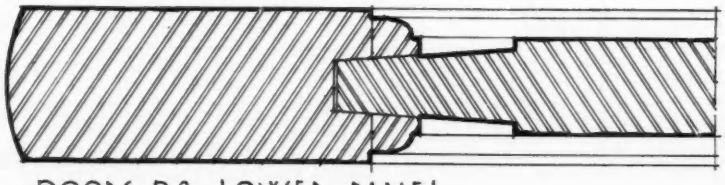


DOORS D2 UPPER PANEL

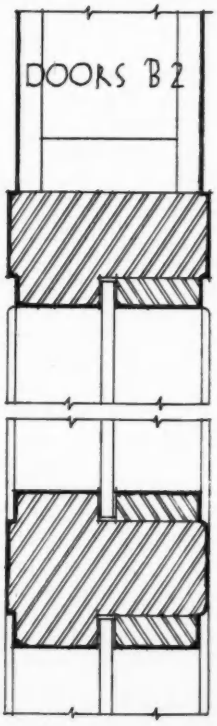


BAR

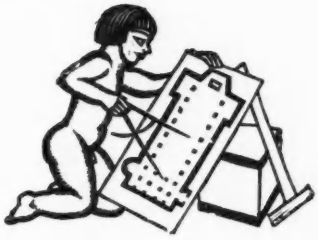
EDWARD MAUFE
ARCHITECT



DOORS D2 LOWER PANEL



THE ARCHITECTS' JOURNAL



WEDNESDAY, JULY 23, 1930

PROFESSIONAL TOLERANCE

A Lesson from Wren and Vanbrugh

PUBLICATION of the sixth volume of the Wren Society, formally reviewed elsewhere, opens the door anew to speculation upon the involved origins of Greenwich Hospital—an exercise of a kind perennially intriguing to the practical side of the architect's mind. But he may also draw from these collated documents a lesson in psychology too valuable to be overlooked.

History's pages are too often soiled by stories of jealousy and pettiness marring the dealings of great artists with their brothers. It is, then, all the more refreshing to find so charming an example of tact, forbearance and fine good fellowship as existed between the veteran Sir Christopher Wren and John Vanbrugh, a man thirty-two years his junior, his subordinate and in some ways his rival, in spite of occurrences which would assuredly have led to friction and discord between men of less generous temperaments. Wren seems to have taken an immediate liking to the young man, who gave up successful play-writing, as he himself had given up mathematics, and, with as little training, had suddenly blossomed into a full-blown architect.

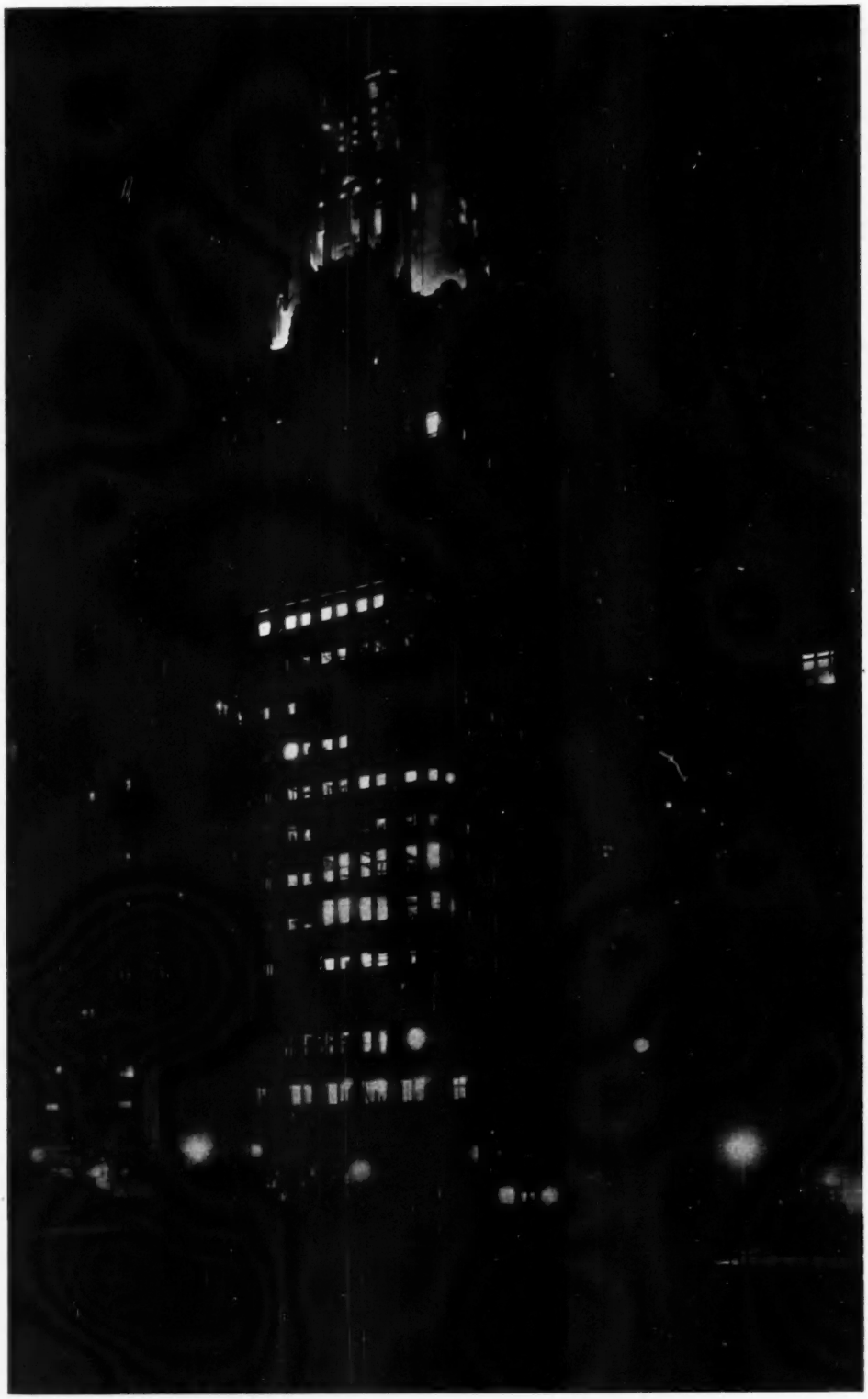
Their first recorded professional contact occurred when Vanbrugh was appointed Controller of the Board of Works in 1702—some three years only after his first essay in architecture at Castle Howard. Wren was obviously impressed with his capabilities, welcomed his collaboration and, from the start, allowed him to exercise a considerable influence on the design of the later buildings at Greenwich. Up to recently it has always been assumed that it was only from 1716, when Vanbrugh was made Surveyor in his stead, that his influence was seen, but it is now clear that it actually goes back much earlier.

A year or two after their first association an event occurred which might have disturbed the harmony of their relations. This was the appointment of an architect to design the palace that Queen Anne decided to build for the Duke of Marlborough. Wren and Vanbrugh both submitted models, and the design of the younger man was selected. This may have been a severe blow to Wren's pride and prestige; but, if so, he bore no resentment, and we read that he went down to Woodstock later on to report on the probable cost of part of the scheme. It is true that he was seventy-two years of age at the time and had an immense practice, but it is not an invariable rule that artists are reconciled to the loss of an important commission merely because they are elderly and busy.

Apart from such rivalry, there were several incidents in their official association which might have led to friction. Soon after his appointment Vanbrugh found serious irregularities in the Office of Works, which he did his best to persuade Wren to investigate and rectify. But Wren was old and easy-going, and allowed things to drift; so Vanbrugh took matters to Godolphin over his head, being careful, however, to make it plain that he made no suggestion of dishonesty on Wren's part.

Again, ten years later, Vanbrugh prepared a memorandum on the reorganization of the Office of Works and the reform of abuses, which he submitted to the Treasury. These incidents do not seem to have ruffled the calm of their friendship, and, when Vanbrugh was offered the Surveyorship, either before or after Wren's dismissal, he wrote to a friend that he " refus'd it, out of Tenderness to Sr. Chr. Wren."

Wren's character had no trace of meanness or smallness in its composition, and Vanbrugh was a man with a sense of humour, and infinitely good-natured. Wren's remark on hearing that he had been dismissed from the post of Surveyor-General gives the key to a character of peculiar nobility: " Now fortune commands me to apply myself more closely to Philosophy." If he took so great a blow with such fortitude it is but natural that the smaller disappointments that came to him through the good-natured Vanbrugh should have been taken in a similar spirit of philosophic calm.



NIGHT PIECE IN NEW YORK:
THE AMERICAN RADIATOR BUILDING

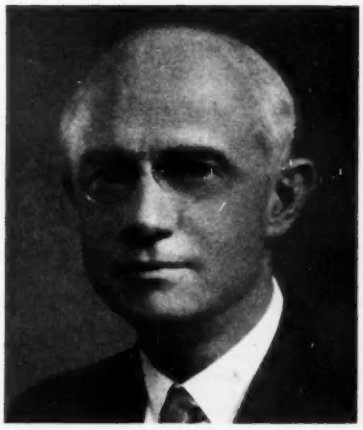
"Though possibly ugly at first, architects have attained such skill in using the material at their disposal that today this tall-building architecture is universally held up as a great contribution to creative art." *(See the lecture on "The Art and the Economics of Skyscrapers," by George E. J. Pistor, Treasurer of the American Institute of Steel Construction, on pages 133-4 of this issue.)*



Sir Walter Peacock, Honorary Associate of the R.I.B.A., who, after twenty-two years' service as secretary of the Duchy of Cornwall, is retiring, and will be succeeded by Major H. McCormick.

NEWS & TOPICS

George E. J. Pistor, Treasurer of the American Institute of Steel Construction, Incorporated, author of the lecture, "The Art and the Economics of Skyscrapers," summarized in this issue (pages 133-4).



R.I.B.A. BYLAWS AMENDED

ARCHITECTS are no more fond of reading legal documents than are other people, yet it behoves all members of our profession to study with care the amendments to the R.I.B.A. Bylaws, which have just been published. The principal alterations concern the terms upon which Licentiates are admitted. In order that the R.I.B.A. should truly represent the profession it is necessary for it to include in its ranks the largest possible number of reputable practitioners, and nothing is gained by setting up a standard of academic attainment, the rigid enforcement of which would so restrict the number of R.I.B.A. members as to render the Institute impotent to control the professional activities of the great majority of practising architects. With the object of extending the range of its influence, the R.I.B.A. has now decided to open the Licentiate class to "any former Licentiate of the Society of Architects, who upon the amalgamation of the Society with the Royal Institute, became a Student of the Royal Institute, and who satisfies the Council that he possesses the qualifications which entitle him to such election."

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Another important amendment designed to facilitate the entry of the proper kind of recruit to the architectural profession is an act of decentralization, whereby nominations for membership by candidates practising within the province of an Allied Society, instead of going to the Council of the R.I.B.A., are dealt with by the Council of the Allied Society. This is an excellent arrangement, because it relieves the central governing body of a good deal of routine work, while it renders the scrutiny of nomination forms more effective if this work is undertaken by architects practising in the same district as that in which the candidates themselves reside.

RETIREMENT OF SIR WALTER PEACOCK

During the past quarter of a century the estates of the Duchy of Cornwall in London and the West of England have been entirely remodelled. A somewhat similar transformation took place at the close of the eighteenth century, when Sir Thomas Tyrwhitt was Secretary to the Prince of Wales. The process of reorganizing the Kennington Estate and the Manors of Somerset, Devon and Cornwall began as far back as 1908, when King George was Prince. Sir Walter Peacock's administration proves that the King's personal interest in the smallest details had the effect of sweeping away slum areas and obsolete buildings which had been neglected for years. So, before the housing question had become accentuated, at a time when the spoliation of the courtyards was still distant, the policy of the Duchy of Cornwall was directed to the preservation of local amenities.

★

Sir Walter Peacock brought scholarship and artistic acumen to his management of the estates. Keenly interested in architecture and the social traditions which make up the story of England, he identified the county policy of the Duchy with agriculture and stock breeding. In his mind the estates exist as one of the Crown ornaments, to be handed on unspoiled from one Royal life tenant to another. Sir Walter Peacock is well known in architectural circles. He is an Honorary Associate of the Royal Institute of British Architects, and he has recently been appointed a member of the Royal Fine Arts Commission.

POULTRY CONGRESS ARCHITECTURE

When Erich Mendelsohn was recently in England he doubtless surprised architects by declaring (in effect) that the Crystal Palace was the earliest "modern" building, and even now the most interesting in England. This pronouncement will doubtless induce architects to look again. If they wish to do so they could not do better than see the Palace during the current week, during which the exhibition in connection with the World's Poultry Congress (July 22–30) is staged. The vast building can certainly never have been seen to greater advantage, for not only is the heterogeneous show of statuary and things in glass cases for the most part discreetly hidden, but the main floor is occupied by an orderly layout of well-designed stands, handled with just that degree of playfulness suitable to ephemeral exhibition architecture.

★

The general atmosphere of the main nave and two transepts is one of light, air, and grey-blue paint. In the temporary exhibition layout the happy choice of strong yellow, relieved by black stencilling, with exhibitors' names in good "Trajan column" black lettering on a milk-white fascia, has been adopted throughout, and while a standard design, in several variants, has been enforced, with obvious advantage to the exhibition as a whole, the degree of departure from the standard which has been allowed here and there shows a judicious control, striking the mean between regimentation and licence. Mr. J. S. Lee, the Congress architect, may be congratulated on his achievement, which anyone who has been connected with

the staging of exhibitions will appreciate as being no easy one. Some of the stands show a humorous freedom in design which relieves what might be a dull exhibition—notably Denmark's modernist tower of butter-tubs and the egg-marketing skyscraper of National Mark boxes.

AEROPLANE INFLUENCE ON LONDON'S BYLAWS

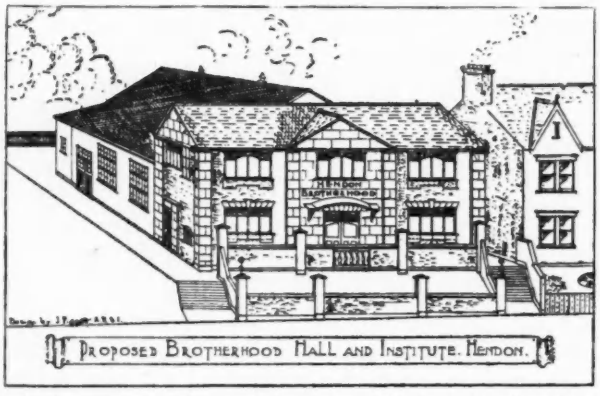
While a growing number of professions, associations and the like, combine to urge the L.C.C. to bring its antiquated building regulations up to date, that body gazes out to horizons unknown and considers what may be done to provide garage and other accommodation in Central London. It wonders how the Thames, the roofs of big buildings, etc., may be adapted for the alighting and taking off of liners of the skies. Actually, the L.C.C. bylaws have done and are doing their best to hinder the development of flat roofs in Central London, since they were drawn up before steelwork was a workable proposition and have never been thoroughly revised since that date. In any case, however, it will be the consolidation of aircraft services in accessible aerodromes that will occupy the attention of the L.C.C., for, like the omnibus, aeroplanes are impossible unless the element of promiscuous and scattered termini in Central London is entirely eradicated. Herein lies the great difficulty, as all passengers who have hung about Croydon waiting to get to France will rise up and tell you.

LONDON'S COMMEMORATIVE PLAQUES

It has been pointed out that in some cases where new buildings replace buildings of historic or literary association, there is a tendency to forget to incorporate the commemorative plaques, probably because they are regarded as not "going" with the new buildings, or because the house-breakers have destroyed them. This is a pity, because London is enriched by the associations these plaques evoke, and the plaques themselves are beautiful things, as well done as it is possible to do them, and ornaments to whatever type of building they may be placed upon.

PRIVATE ENTERPRISE OR DIRECT LABOUR ?

Nottingham is engaged in mighty controversy over the question of whether a large building contract for housing is to be carried out by private competitive enterprise or direct labour. It appears that direct labour will cost £12,000 more than the other, and public opinion wants to know why the Housing Committee should rely on direct labour and municipal management when it starts its work with such an enormous loss. It has been proved by other businesses that the system of creating a building department as a means of saving the amounts that would otherwise go into contractors' pockets is a system that does not work in practice, because it is removed from the healthy impetus to competition, and has no guide to show where economy is reached or passed, and when the business is a municipality and its members salaried officials the losses are correspondingly greater.



PROPOSED BROTHERHOOD HALL AND INSTITUTE. HENDON.

No fewer than twelve foundation stones of this proposed building were recently laid.

PRESERVING A MAGNIFICENT APPROACH

When the Cambridge Preservation Society bought a large area of land on and below Madingley Hill with the object of keeping inviolate the most beautiful approach to Cambridge, they did a bold thing. They spent some £26,000 in doing so and have received to date only £11,000 or so in subscriptions and donations. They hold that the lovely country that surrounds Cambridge is as much a part of it and of its educational influence as are the time-worn stones of the colleges, and that a villa-ridden background would spell disaster to the well-being of the University. What they save for the town is indeed of greater value pound for pound than any building upon which thousands are spent, and it is to be devoutly hoped that the money they ask for will be given them, and more still if they can show how and where it may best be spent.

SOUTHAMPTON'S BAR GATE

How to preserve an ancient gateway, that all but blocks the principal and narrow shopping street of Southampton, without loss of character has long been a standing problem with the citizens of that town, and it is unfortunate that being advised to keep the ancient walls and increase the number of openings, they can find nothing better to do than leave the Bar Gate stranded in the midst of a newly created *place*, although it is so obviously a gateway through a wall. Deprived of its setting, it will be but a poor thing and barely worth the keeping, looking, with a circus of modern shops about it, like a bear in a drawing-room. Southampton is growing so rapidly, and, on the whole, so unwisely that it can ill afford to play tricks with its few remaining antiquities, and it is therefore much to be hoped that Mr. H. P. Cart de Lafontaine, who is advising them, will be supported in his desire to preserve the true character of the Bar Gate. If he cannot do this, it would be better blown up, so that the twentieth century may breathe naturally.

BROTHERHOOD AT HENDON

A Hendon friend sends me a cutting from the local *Times and Guardian*, containing a reproduction of the design for the new Brotherhood Hall and Institute, which I give on this page. The design is the work of J. Piggott, A.R.S.I. I am not myself an expert in Brotherhood Halls; nor do I count so much as a single A.R.S.I. among my many friends; nevertheless, I should say this design was worth careful study.

ASTRAGAL

HOLIDAY SKETCHES COMPETITIONS

Entries for the June Competition are now closed, and the result will be announced on August 6; they have produced so rich a harvest, both in quantity and quality, that adjudication will be a formidable task. The July and August competitions are still open; see particulars on p. xliv.



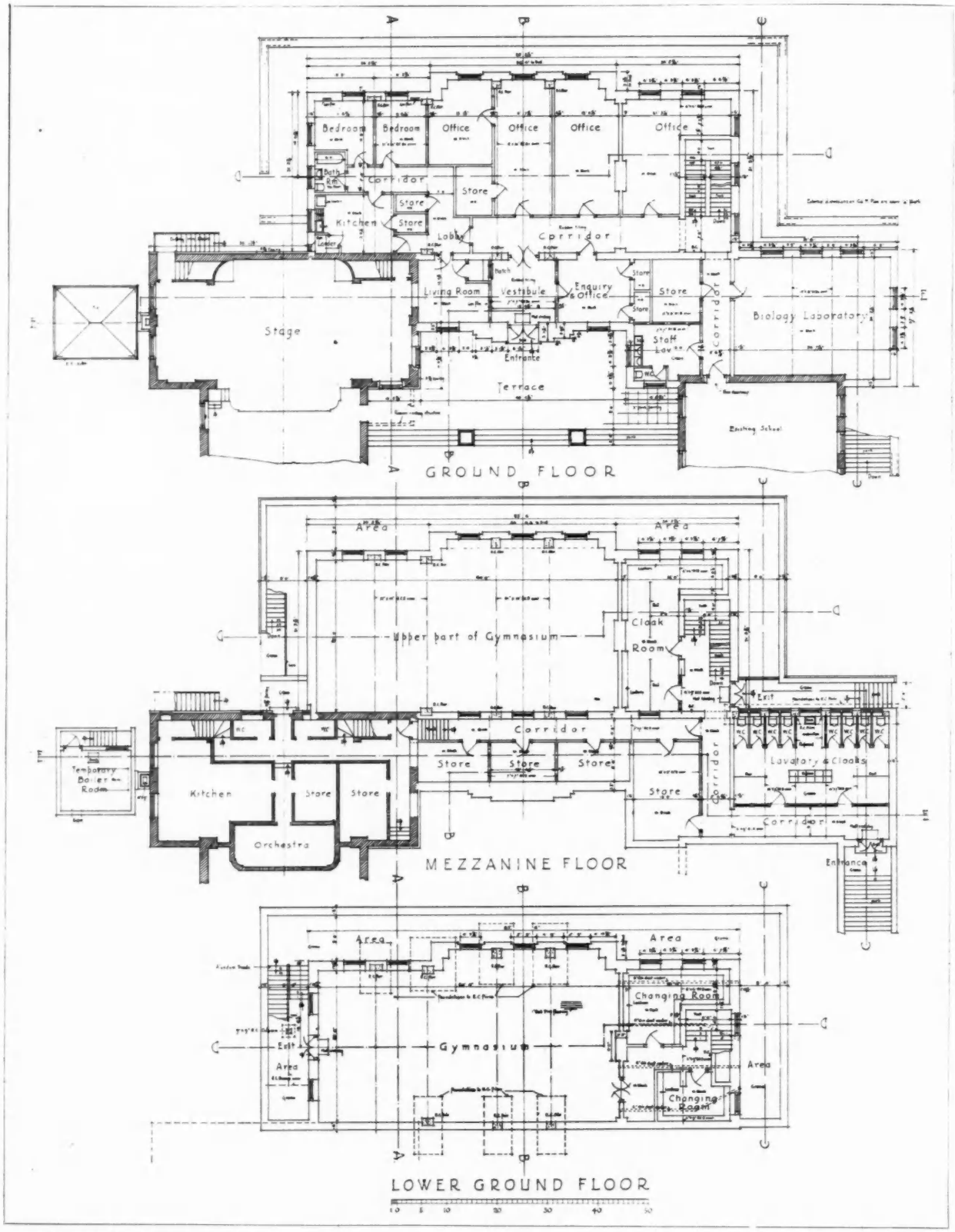
The garden side of Crewe Hall, which was opened by the Queen last Saturday. The building is named after Lord Crewe, first chairman of the Hampstead Garden Suburb Institute, who has resumed his work there after the break caused by his ambassadorship in Paris.

CREWE HALL, HAMPSTEAD GARDEN SUBURB

DESIGNED BY CHARLES HANSCOMB, IN ASSOCIATION WITH SIR EDWIN LUTYENS

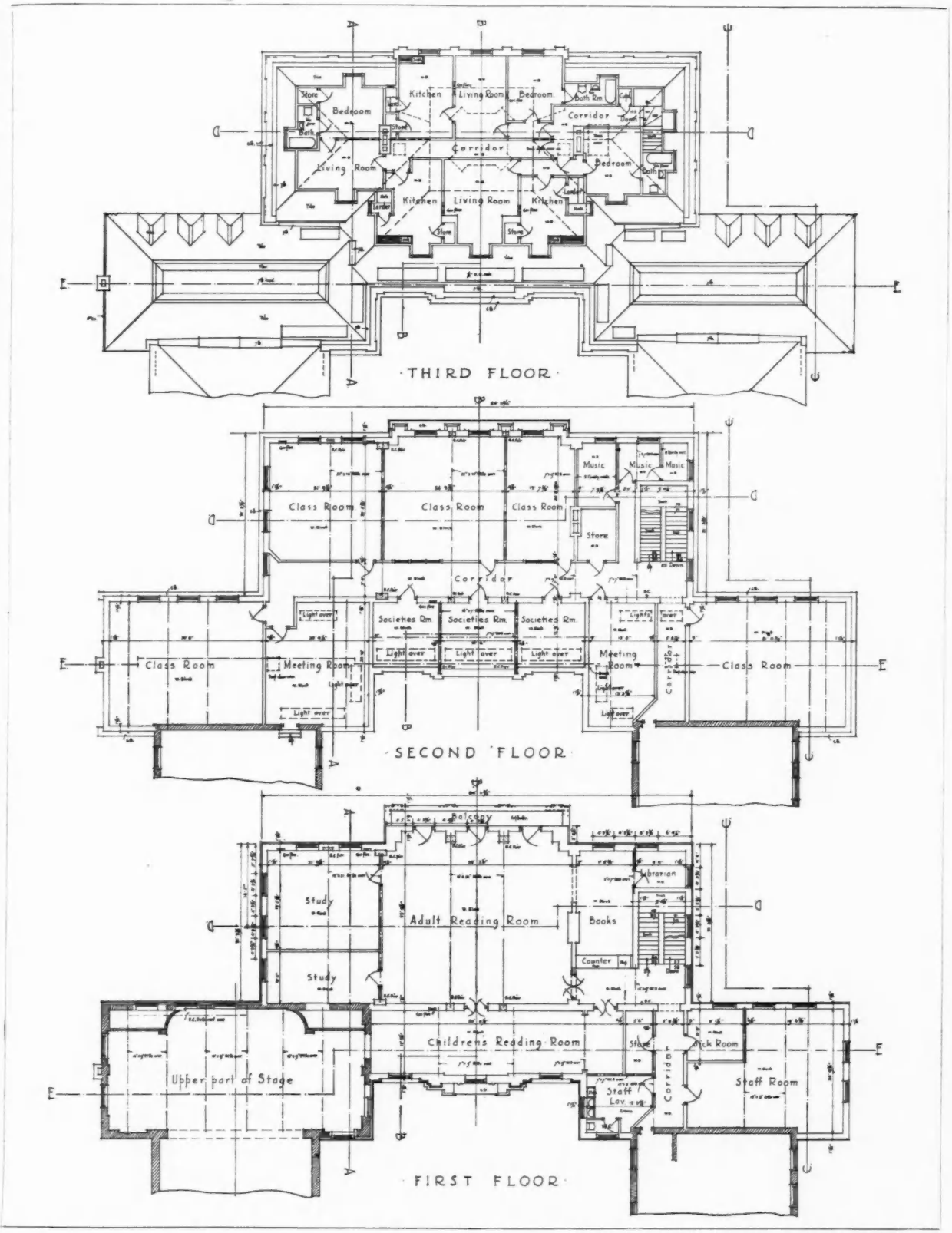
ON Saturday afternoon last, Crewe Hall, the latest and third section of the Hampstead Garden Suburb Institute, was opened by the Queen, who was received by Lord Crewe, president and chairman of the Institute Council, after whom the hall has been named; and Mr. Harold Lacey, principal and secretary of the Institute. Among those present were Dame Henrietta Barnett, Lord Lytton, Sir John and Lady Davies, and the chairmen of the Middlesex County Council and the local district councils. The Institute buildings stand in Central Square : on the hill where the educational and social life is centred.

The Institute was started in 1909 by Dame Henrietta Barnett, and the first building was erected from the designs of Sir Edwin Lutyens. This was a single hall, and was opened by Canon Barnett in 1909. In this hall the organized social life of the suburb was consolidated. As no one could suggest a name descriptive of the many uses to which the hall would be put, it was designated The Institute. Three years later, in 1912, Doctor Sophie Bryant began the Henrietta



Crewe Hall, Hampstead Garden Suburb.]

Lower ground, mezzanine and ground-floor plans. The new building is the third block of the Hampstead Garden Suburb Institute, and connects two previously erected, but not shown on the plans here reproduced. It has been built to house the Henrietta Barnett School. Parts of the older portions of the buildings are shown hatched on the plans reproduced on this and the facing page.

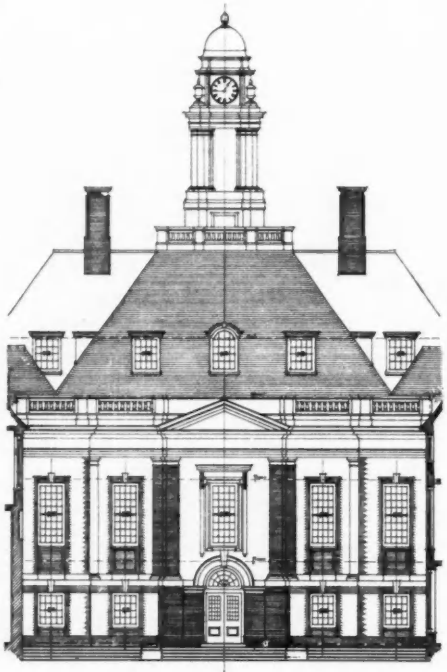


[*By Charles Hanscomb, in association with Sir Edwin Lutyens*

First-, second- and third-floor plans. The new hall contains the principal's room, offices, staff room, students' common room, art rooms, laboratory, research library, book room for children, gymnasium, classrooms, music rooms, orchestra room, woodwork room, seven storerooms for books, equipment and dramatic properties, four changing-rooms and residential flats for the use of the staff.

Barnett School with six children. Today it boasts 1,800 fee-paying members of its classes and societies, besides the uncounted hundreds who attend the concerts, debates, lectures, conferences, plays, and other educational activities of the Institute.

It was in 1918 that a public company was formed for the management of the Institute, and Lord Crewe became the first president of the governing council. During the same year the Queen laid the foundation stone of the second addition to the Institute, designed by Sir Edward Lutyens in association with Mr. J. C. Soutar, and afterwards known as the Queen Mary Hall. This stone, alas! stood carefully covered for nearly five years, for the devastating war had shattered all the building intentions of the committee. However, the hall was finally erected at a cost of £14,000, and was opened by the Queen in 1924. In 1923 a stage was built at a cost of £3,000 from the designs of Mr. F. J. Watson Hart, and it was here that the Play and Pageant Union won the cup of the British Drama League this year.



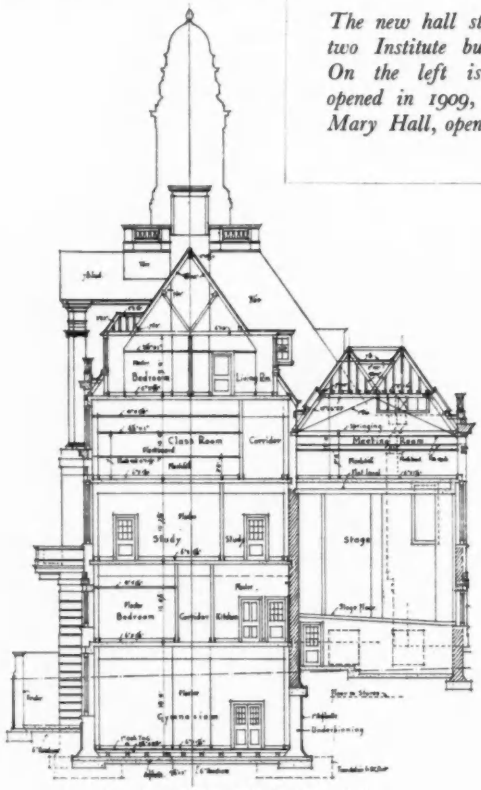
FRONT ELEVATION

The new hall stands in the centre of the two Institute buildings previously erected. On the left is the original Institute, opened in 1909, and on the right Queen Mary Hall, opened by the Queen in 1924.

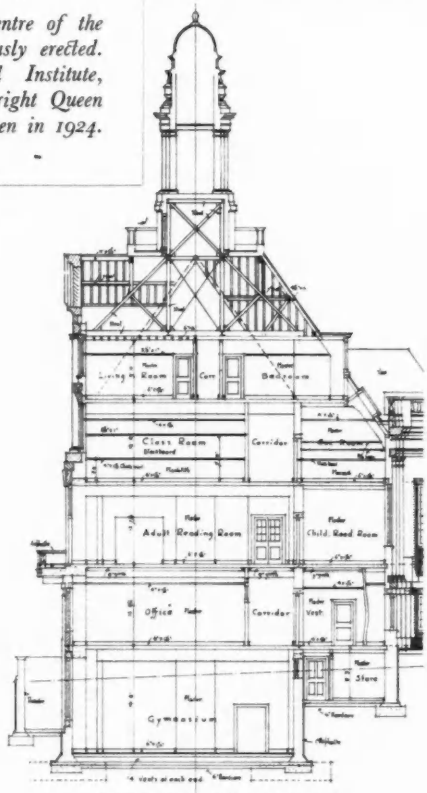
As it stands today, this unique suburb Institute has cost £63,000, and of this sum the Middlesex County Council have contributed £25,000. The new building has resulted in a substantial expansion in the numbers and activities of the Henrietta Barnett School. The seven new classrooms provided, together with the existing rooms in the Queen Mary Hall and the old hall, will accommodate 400 pupils of the high school and 100 boys and girls of the preparatory.

The further plans of the council include the laying out of the garden, the building of a fully-equipped school of art, and the erection of hostels for the students.

The proposed garden scheme has been designed by Mr. R. Hardy-Syms. Immediately surrounding the Institute buildings will be a sunk area, with terraced slopes planted with flowering shrubs. This has been specially contrived to bring the base of the buildings into view. The Institute does not serve only the needs of the garden suburb, but provides education for families brought there by the "Tube."



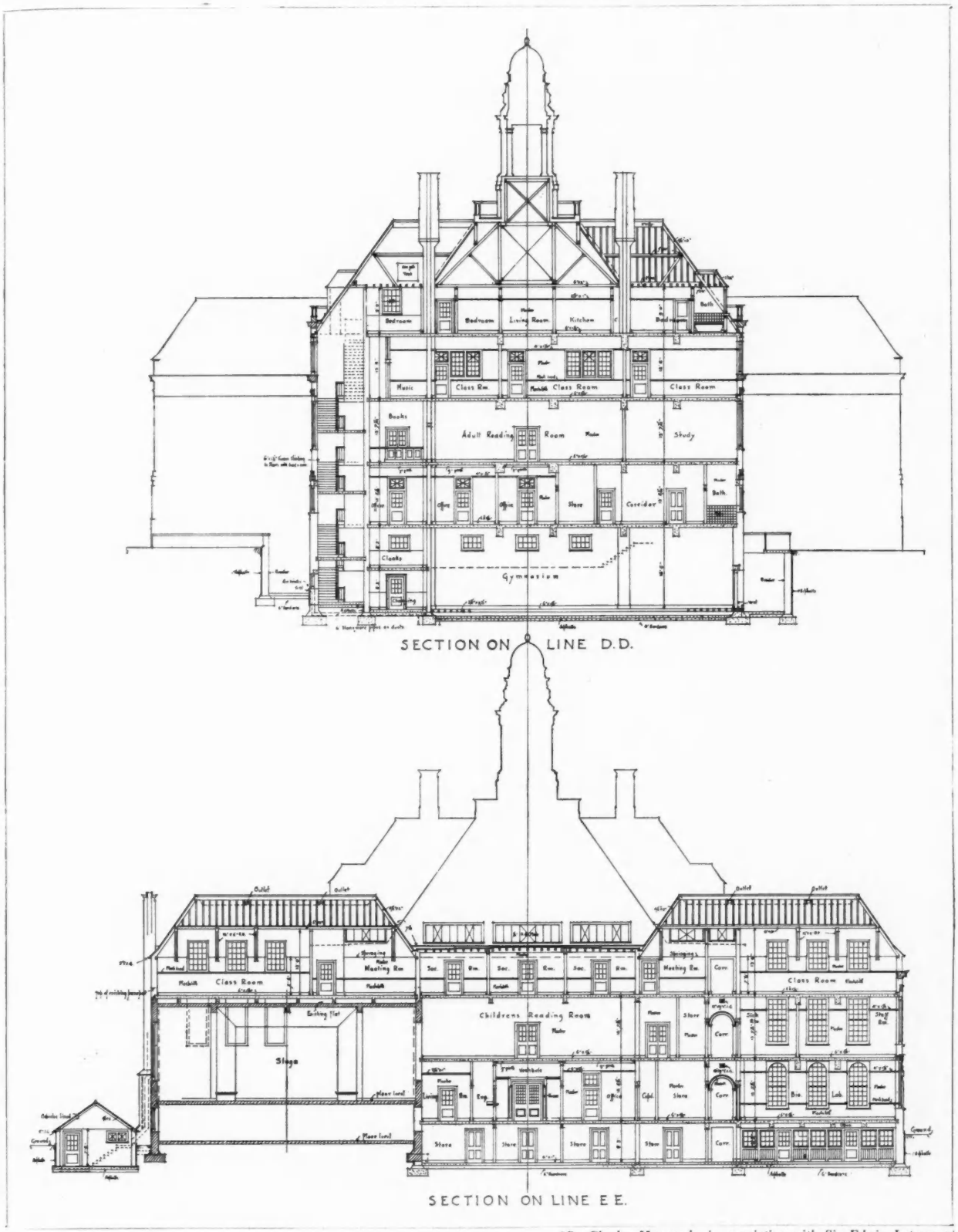
SECTION ON LINE A.A.



SECTION ON LINE B.B.

Crewe Hall, Hampstead Garden Suburb.]

The sections on this and the facing page are reproduced to the same scale as the plans (pages 116 and 117) with which they should be compared. In planning the new building the architects have availed themselves of the opportunity to place a classroom and a meeting-room above the stage, which was erected in 1923 from the designs of F. J. Watson Hart.



[By Charles Hanscomb, in association with Sir Edwin Lutyens.

The longest apartments in the building, as will be seen from these two sections, are the gymnasium, and the adults' and children's reading-rooms. The gymnasium measures 60 ft. by 30 ft. and extends in height through two floors, a distance of about 16 ft. The adults' reading-room is 50 ft. long by 12 ft. 6 ins. wide, and the children's, 38 ft. 3 ins. by 33 ft. 9 ins.

THE WORK OF THE SCHOOLS: ii—LONDON

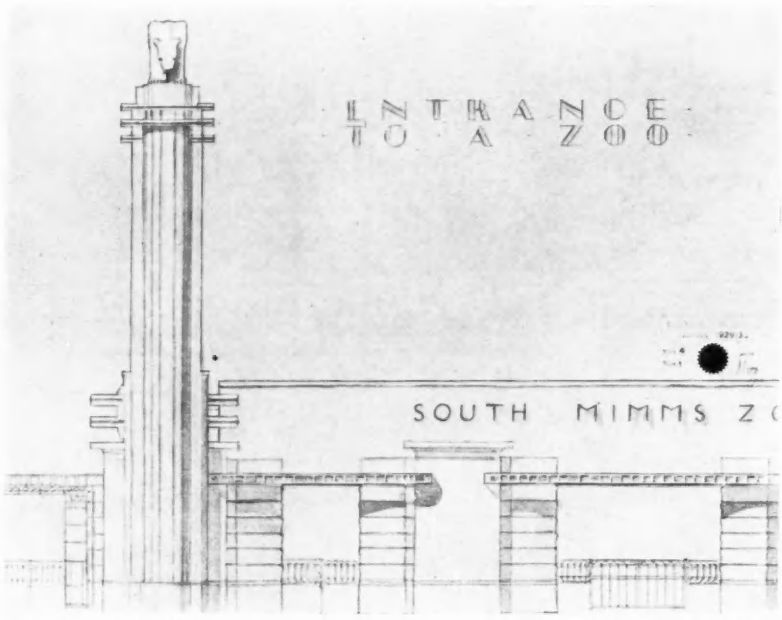
Architectural Association

BY M. L. ANDERSON

IT is not always easy to write about an exhibition; not, at least, when nearly all the work shown is sound and space is limited. Under such weight of odds the conscientious efforts of the critic have been known to dissolve into a more or less arbitrary selection of two or three particularly striking but possibly quite unrepresentative exhibits.

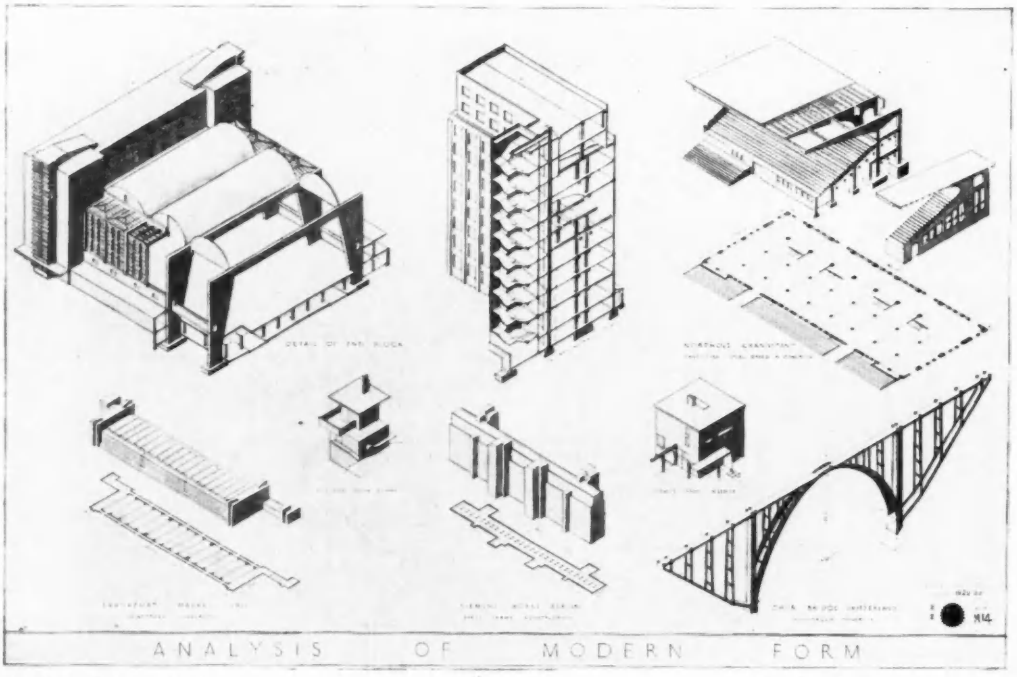
This year's exhibition of work by students in the A.A. school is therefore something of a relief for the critic. The general level of design is of the high standing to which one has become accustomed: the draughtsmanship often far better than one has any right to expect. Certainly there are exhibits which shine with greater lustre than their surrounding neighbours, but one is saved from having to take refuge in discussing individual works, because there is a matter of deeper significance, and that is the purpose which underlies the work of each year, runs through the whole school and gives vitality to every subject which has been set.

One traces the influence of a continuity of thought, which begins in the First Year, is founded upon well-defined precepts, and pursues its course to the Fifth Year. The whole affair is comparable with a well-organized factory: certain definite principles (like raw materials) are developed and elaborated, and, in due course, two or more link up and continue as a single entity until yet another (duly refined and understood) is brought in to join it.



Architectural Association.] [*By Miss C. J. Dillon (Fourth Year).*

The entrance to a zoo.



Architectural Association.] [*By E. Mayorcas (Third Year).*

Among the works treated are Frankfurt Market Hall, the Siemens Works, Berlin, Northolt Grand Stand, and the Chur Bridge, Switzerland.

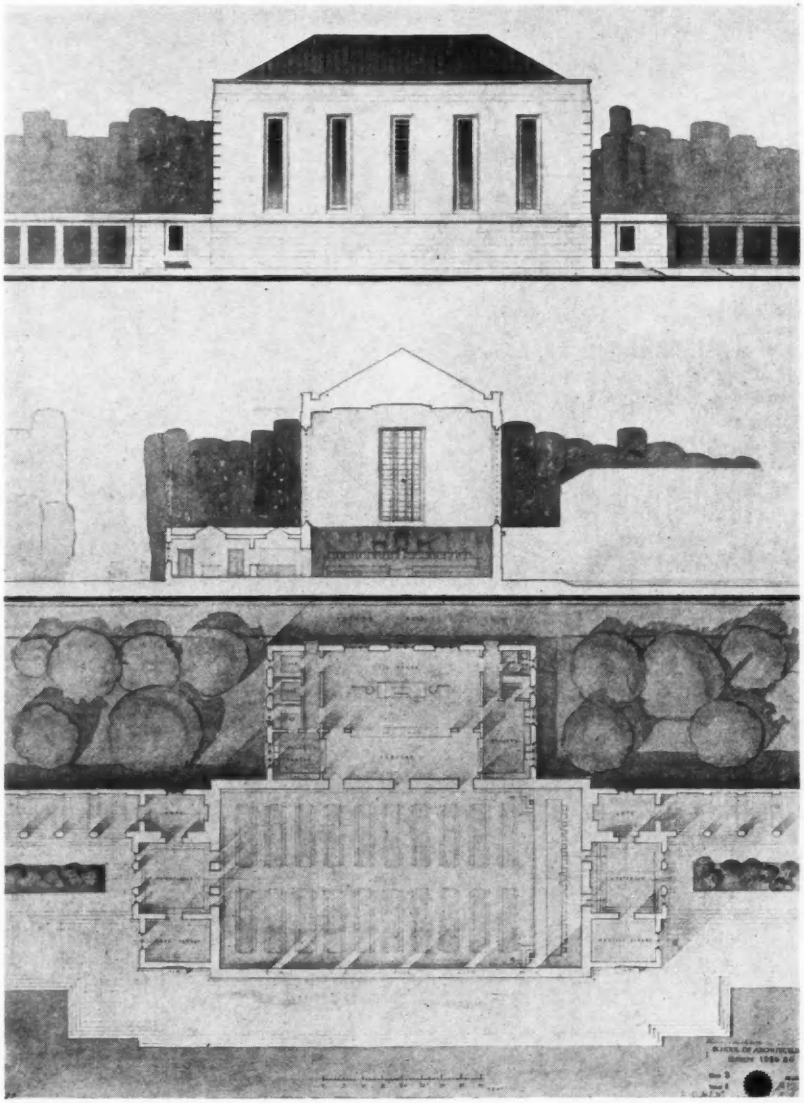
In this way the various elements, such as draughtsmanship, construction, traditional form, planning and so forth, are each dealt with in sequence.

In the First Year, therefore, the work is, of course, purely elementary in character. Time is devoted to the study of plane and solid geometry, free-hand drawing, lettering, projection of shadows, and analysis of pattern. A problem in design is set; and this appears first of all as a sketch. Later, the sketch is resolved into perspective and a model is made, while the construction is also worked out. First Year work also includes study of the Greek Orders, and of decoration. Running through the course is a series of six-hour sketches.

In the Second Year these studies are developed and applied. Architectural History, Design and Construction are studied, and special attention is given to the matters of composition and proportion as exemplified by classic work.

The impression has grown up in some quarters that the Architectural Association's modern tendency is developed and encouraged at the expense of traditional forms. Only a single glance is needed at this year's exhibition to show that this idea is a fallacy. Thought is certainly encouraged along modern lines, but before anyone is allowed to develop his propensities in this direction, it is made quite certain that he has a thorough grounding in the principles of traditional form and proportion. Thus, in the Second Year, study is devoted to Classic, Mediæval and Renaissance forms, and it is not until the Third Year that any attempt is made to analyse Modern form.

Work of each period is analysed, first according to the requirements of the plan, and subsequently in the relation of the plan to the elevation. One cannot help feeling that there would be far less ink spilt in condemnation of the modern movement if its exponents had had the opportunity now given to the A.A. students to form sound ideas of classic work. It may be that this method of teaching will actually stimulate present members of the school towards a modern expressionism; and, if it does, we shall be forced to admit that nobody has a better right to design in the modern manner, because an appreciation of tradition will be the basis of their lines of thought.

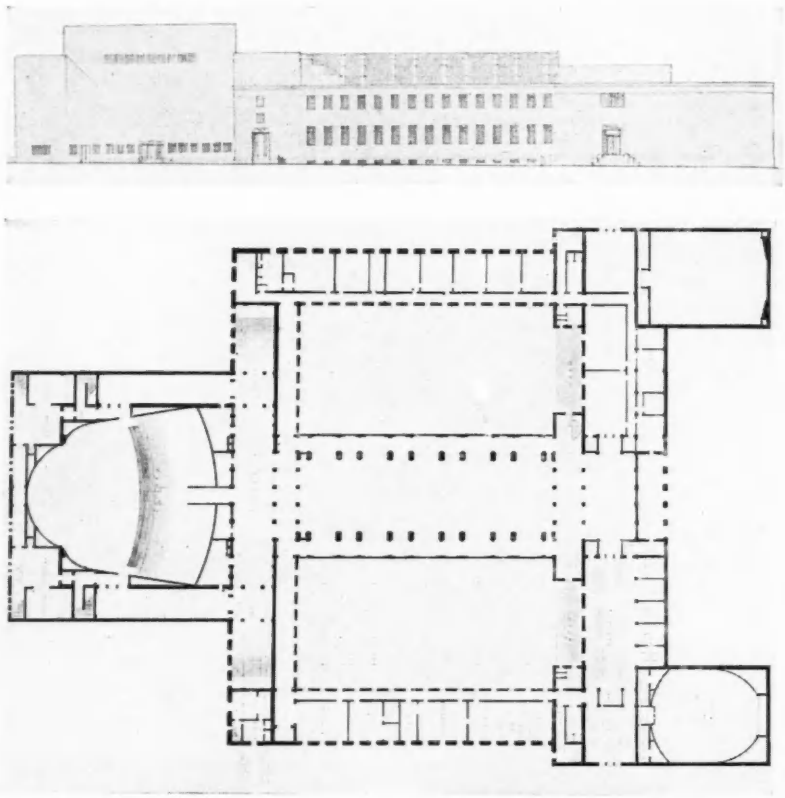


Architectural Association.] [*By E. C. Kent (Third Year).*

A school dining hall.

It is particularly interesting to trace the close co-ordination of plan, structure and elevation. Each of these elements is clearly analysed as an independent entity, so that when the time comes in the Third and Fourth years for more advanced design, it is a poor sort of individual who cannot make some sort of a show in the co-ordination of the three.

The A.A., in short, is teaching its students to do, subconsciously, what is often an effort to men who have not had the advantage of a school training. It is not merely content for students to draw out Orders or to measure up traditional buildings; it definitely sets out to show the reason for everything —the *reason* why the Orders have found æsthetic acceptance throughout the ages; the *reason* why mediæval architecture came about and why, in its better forms, it is fundamentally satisfactory. And, in so doing, it shows, *ipso facto*, that the Orders cannot be used unreasoningly today; that it is a mistake to build jam factories in the Byzantine manner; and, more directly, why and how modern building demands an expression of its own.



University College, Bartlett School.] *[By B. A. Stewart (Fourth Year).*

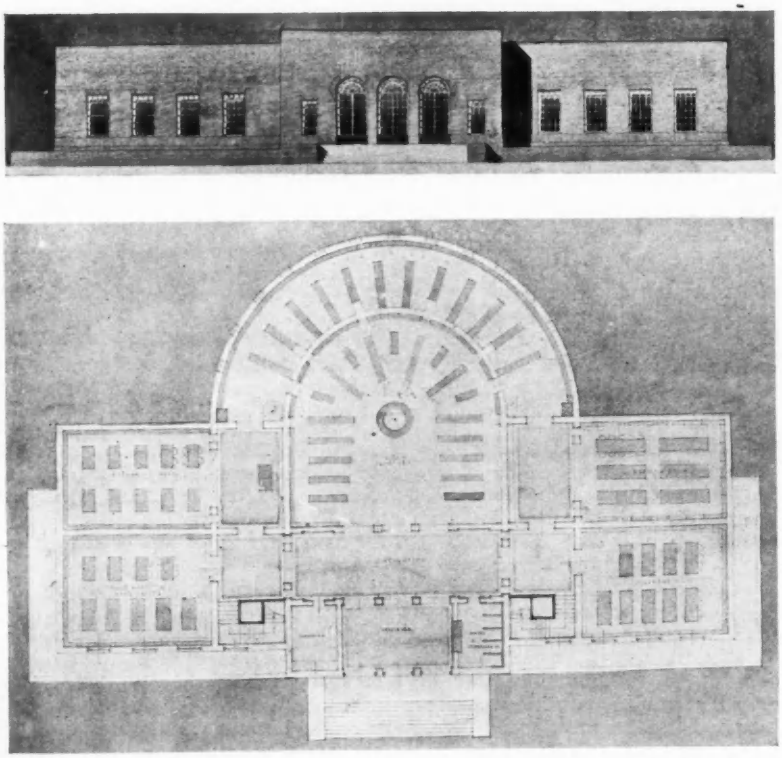
An Imperial museum: elevation; and first-floor plan.

University College

BY JOHN GREENIDGE

THE annual exhibition of work which marks the end of the academic year at the Bartlett School of Architecture at University College carries one gently along through the drama of architectural design. There are no shocks and few improprieties. The curtain rises to disclose the inevitable Greek setting, in most cases very well handled, to the tune of the variations on the Orders. After the well-known classical prologue, life is epitomized as the drama proceeds. From modest beginnings with the private school and village hall our hero is promoted from the provincial market hall to the departmental store, where he obviously makes good behind long bands of plate-glass. One must suppose that his affluence is such that, like the Duke of Wellington, he cannot now do without a fine town house. During his career Empire Free Trade has been tried and has presumably proved successful. A huge Imperial museum rises as a mark of regenerate national prosperity due, partly no doubt, to clear thinking and the economic design of such things as telephone exchanges and concrete signal-boxes; till, when the curtain falls, we find him satisfied and thinking of retiring on the loggia of the superb seaside bathing pavilion that he has generously presented to his native town.

As for the Private School, R. H. C. Finch has designed a building of nice taste with a simple, compact and economic plan. P. B. Durham has



University College, Bartlett School.] *[By Arthur G. Wise (Third Year).*

A small library in a garden city: rendered elevation; and ground plan.

separated the house by a yard or so, but with no very satisfactory link treatment, from the school which, in end elevation, might be for all the world a boiler-house. In both these designs the working drawings, though possibly correct, seem rather tentative and scratchy; and why are half-inch working details still presented on hot-pressed Whatman? The Village Hall by the same designer has a section of real beauty owing to the well-designed roof-truss construction, but perhaps the external effect might have been happier with more wall and not so much roof.

A. G. Wise's Provincial Market Hall would certainly provide an imposing focal point to a small town, but one feels the curvilinear green roof to be a little too much. This is a well-rendered drawing, and so also is the same author's Small Library in a garden city. The elevation is neat, plain and inviting of quiet study—or repose. Perhaps the elevation might have been more effective with subtler breaks to diffuse the one solitary, rather hard shadow.

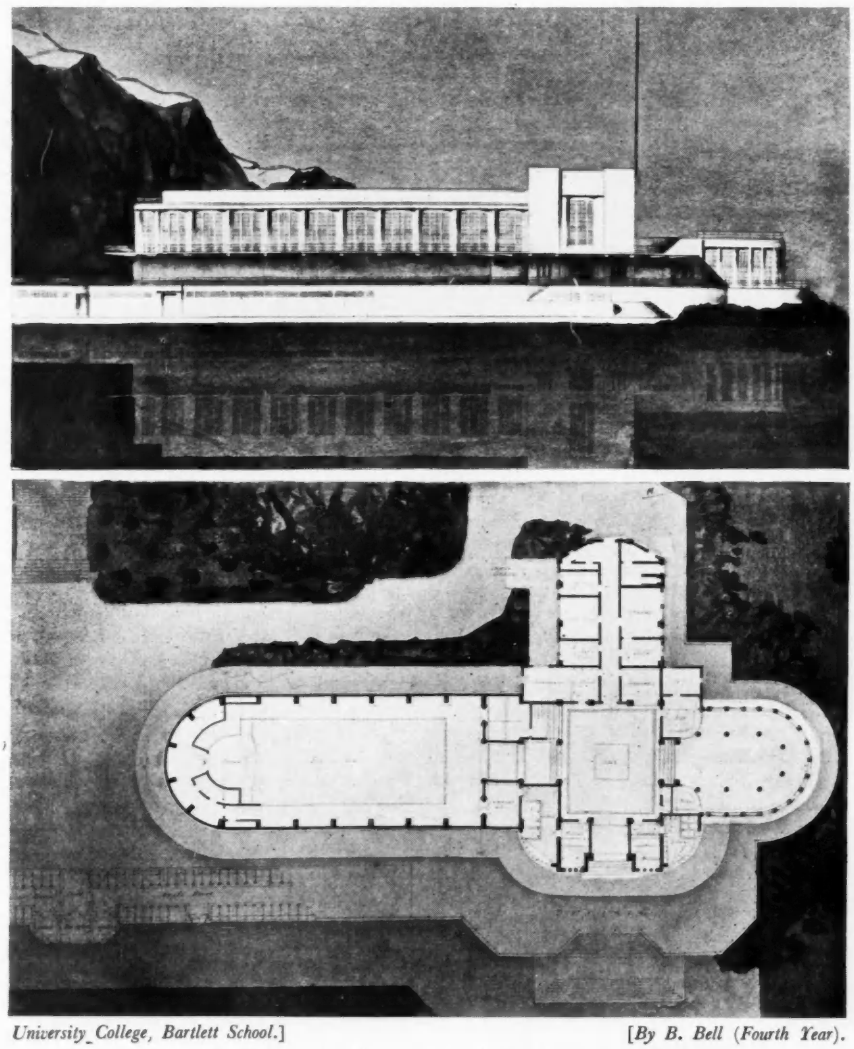
A. H. Devereux's Departmental Store is a promising example of the Hamburger band façade, but the monotony might have been got over by a slight variation in the widths of the bands of glazing.

Of the Town House designs, that of N. Brandon-Jones is the most pretentious and at the same time the most successful, although the central arch and portico treatment is on the heavy side. N. F. Sanders exhibits a well-rendered drawing, but the pavilion ends project much too far and are further emphasized by a pilaster treatment which might well have been omitted. The other designs for this subject, with an upper story and plinth story below, are much less pleasing.

Of the large monumental buildings D. A. Stewart's Imperial Museum is the most interesting. The elevation is quiet and refined, a refreshing antidote to the prevailing vulgarization of the Empire and a straightforward expression of an ingenious plan. There is, however, a dreadful " swarm " of galleries, all exactly alike, the identity of any one of which might baffle even the curator. The parabolic section of the Empire hall is fine and is echoed in plan by the peculiar shape of the assembly hall stage.

Among the designs for modern buildings Miss Olive Briggs shows a library elevation of the bookcase type with a plan which, in spite of the elimination of passage rooms, remains loose and workable. Alan Marlow's Telephone Exchange admirably expresses its purpose and is accompanied by a well-thought-out and neatly expressed working drawing. E. L. W. Davies's Parish Hall has a nice Cotswold character, but what a horrid proscenium arch !

As examples of careful draughtsmanship and arrangement there are two fine Gothic details of a college chapel and a presentation of a pagoda-like building by Arthur Wise, consistent equally in touch and tone.



University College, Bartlett School.] [*By B. Bell (Fourth Year).*

A seaside bathing pavilion : rendered elevation ; and layout.



The main front has a south-westerly aspect, allowing the advantage of windows in three of the walls of the lounge, on the left.



The garden front, showing the arcaded treatment of the loggia, and, on the left, a similar archway, leading to garage and kitchen, etc.

HOUSE AT ABBOTS LANGLEY, HERTS.

DESIGNED BY ALWYN R. DENT

"BROOMDENE," Abbot's Langley, has main walls constructed of 9-in. brickwork, with white cement finish, above a plinth of Luton grey bricks. The roof is covered with antique tiles. The wood casement windows are painted white, fitted with dark-green louvred shutters, and each has a small metal ventilating pane, opening outwards.

The ground floor gives a lounge, 18 ft. by 12 ft. 6 ins., opening on to a tiled loggia. The dining-room, in the other limb of the L-shaped plan, is adjacent to the kitchen, which is tiled to a height of 6 ft., and has, in addition, a tiled recess for the boiler, which heats radiators in the lounge, hall, and landing, and for a gas stove. The sink has teak draining boards and glazed cupboards on each side.

The accommodation also includes a lavatory and "cloaks" in the hall, and a small study or morning-room. The lounge alone has a coal fire; the remaining rooms have gas fires, and also electric heating points, in addition to the radiators indicated. On the first floor are four bedrooms, bathroom, and w.c., the bathroom being tiled to 6 ft. high with Dutch tiles, and floored in cork tiles laid on concrete.

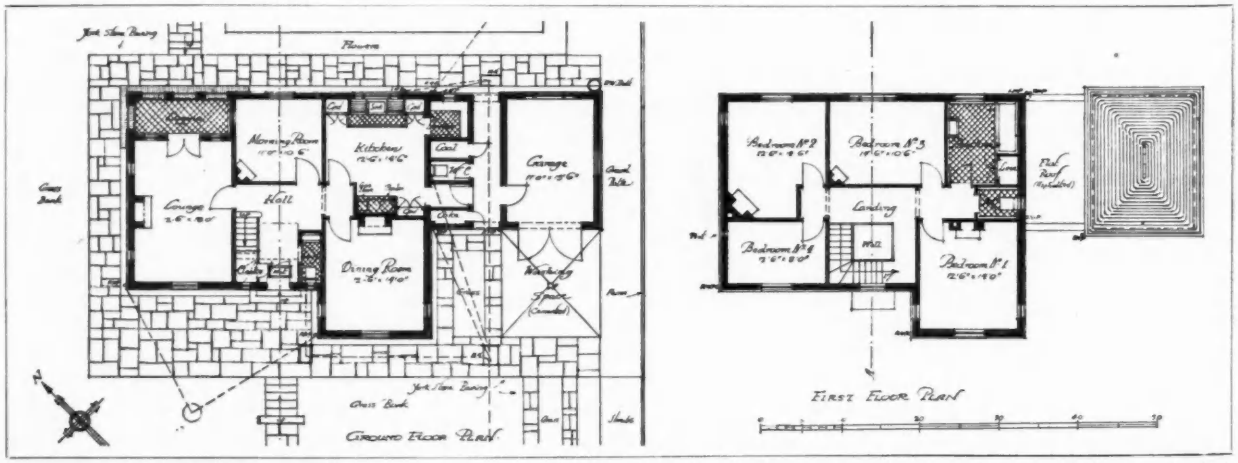
A garage, 11 ft. by 15 ft. 6 ins., is connected to the house by a covered way, separating it from the service quarters.

The house is banked up on two sides, and surrounded with a terrace of York stone slabs, finished rough with varying tints; and stone strips, with grass between, form a runway for a car, about 100 ft. long, from the garage to the front gates.

The total cost of the work was approximately £2,500, which includes about £200 for stone paving, terracing, and gates, etc.



A view of details of the front door, which is flanked, on either side, by a cloakroom and a lavatory.



The ground- and first-floor plans indicate a layout shaped like the letter L. The ground plan shows the stone slabbing, of which extensive use was made in the vicinity of the house and for a runway for a car between the garage and the entrance gates.



ENGLISH PRECEDENT No. 125

ENTRANCE PORTICO, NATIONAL GALLERY, ST. MARTIN'S PLACE, W.C.

Wilkins, who designed the National Gallery, always just failed to produce the qualities of breadth, unity and grandeur. The motifs which he used with great skill are detailed with refinement, and there is a great deal in this, as in his other works, that is architecture of a high order; yet this composition is too cut up and too disproportioned as between surface and modelling, mass and detail, ever to be lastingly satisfying.

The beautiful figure that sits above the central projection cannot influence the design because of its isolation over the central bay.

—[E. MAXWELL FRY]

LETTERS FROM READERS

Architectural Criticism (Skyscrapers)

SIR,—Astragal (in your last issue) is quite right to let your readers "into the know" of the skyscraper. It is only in the very rare instance where it has a large open space near it that it can be seen as a whole. Having in England removed the languors of Test matches by giving them four days only, don't let us go back from that merry attitude by giving *longueurs* to architecture or any other art. The painter of a picture 600 feet high will soon be up the pole himself, and who wants an opera lasting 300 days? A composition beyond a certain size becomes a decomposition, and the only remedy is to disintegrate it into a series like the Forsyte Saga (not sago, O printer: that would be *too* small!).

You will say, a poor devil has to do his best for his client. I tell you what my best will be—the lower part of *my* skyscraper, the only part to be seen without a periscope, mind you, will be of the rarest quality in line and mass, emphasized with sculpture from the best chisel in America, and forming a platform from which will be built the remaining 540 feet of scraper, made merely as an artisan makes an implement, such as a bean-stick or a lift, entirely for use, to be in fact an implement of shelter.

But as far as architecture goes, a short façade and a merry one for me.

P. M. STRATTON

Priced Bills of Quantities

SIR,—Karshish considers that I am confusing matters by expecting that each of the items contained in the bills should be priced by the builders at a profit, and appears to feel that he can adopt Mr. Leaning as a rearguard; but this gentleman tells us that the builders in pricing have to risk the architect, in reducing his estimate, cutting out expensive items: and this "is a conclusive argument in favour of the consistent pricing of the original estimate."

It is clear that Mr. Leaning means that it is advisable for the builders to price all items, allowing a suitable profit to each.

Karshish now informs us that the bills do not form part of the contract, the price being a lump sum.

Let us really state this correctly, for it is all so very confusing, especially to the younger members of the profession.

There are, of course, two forms of the 1909 contract issued by the Institute—one for use where the bills form part of the contract, and the other where they do not.

Karshish does not enlighten the uncertain mind as to this, but prefers to paint a disturbing picture around the latter form, which I assume he approves. Personally I am all for the bills forming part of the contract. For the whole of the contract documents to repose in the hands of the builders for their continual scrutiny is equally necessary to the person who has *complete control* of the work—none other than the architect.

W. A. DOWNE

SIR,—Settling-up Honeywood is a most delicious yarn, and Karshish gets over a good deal of interesting and instructive comment in the course of it.

But who are we to suppose priced the quantities? Certainly not Grigblay himself, as he is revealed as temperamentally unsuited to it. If and when it comes to arbitration, I suppose "the ghost will walk." But as regards the question of sealed quantities, very few builders object to unsealed copies remaining with the surveyor. It is when they are asked to deposit them with young architects, fresh from the schools, that the question arises.

Most builders have, at some time or another, known architects to produce priced copies of quantities, belonging to competitors, in support of an argument over pricing. This, though not commented upon, leads them to suppose that if left unsealed their quantities may be similarly misused.

In saying this, I am not imputing any want of good faith; it is simply want of experience.

J. R. TAYLOR

Concrete for Housing

SIR,—In your issue for July 2 Councillor C. M. White asks whether concrete houses are damp; and the question, put in this form, suggests that he shares the common but mistaken belief that only concrete houses are damp and that brick-built houses are not so.

If the internal surface of a brick wall is left unprotected by lath and plaster there will be condensation from a humid atmosphere; and only slightly more so, because of its smoother surface, does concrete gather moisture. For its protection there are now a number of excellent wall linings, the outcome of experience and experiment, which are an absolute guarantee against the dampness that brought discredit on concrete in its early days when papered or distempered without such protection. The walls of the concrete house on the works of the Portland Cement Company at Greenhithe, Kent, built by our system four years ago, are "bone dry," and look as though they would continue so for a hundred years.

The following are opinions on the subject:

Lt.-Col. Levita, Chairman of the L.C.C. Housing Committee, publicly stated that "as to alternative methods of building, concrete cottages had come to stay, and he could not see why they should not be as comfortable as brick houses, less expensive, more durable, *free from damp*, and less costly of upkeep."

A Government Committee of eminent building authorities, appointed in 1925 to consider new methods of housing construction, reported "that in their opinion one of the best methods of substantially supplementing the output of houses is the use of concrete placed or poured *in situ* between steel shutters, and that this method is a proved success, promising more houses and more permanent structures than any other alternative to brick construction which it had had before it."

Moreover, the Technical Committee of the National Housing Council has publicly recommended the building of concrete houses poured between shutters, and advocated their widespread adoption.

Perhaps the answer to your correspondent's further question as to whether concrete houses are satisfactory habitations, is to inform him that in America, where they are in this matter certainly more progressive, concrete as a material for building houses has practically wiped out time-honoured brick.

In 1920 America made twelve thousand million bricks, and concrete then represented only 22 per cent. of the total output of these two materials. In 1925 brick consumption had fallen to 6½ thousand million and the proportion of concrete increased to 50 per cent. The year 1928 saw a further big decline in bricks; and as the progressive use of concrete in this country is closely following the lines of America, it would seem safe to predict that in ten years' time brickwork will represent not more than 25 per cent. of the total output of these materials.

Another prejudice which dies hard is that the 6-in. concrete wall of a small house is of inadequate strength for its purpose. So frequently was this urged by those whose interests in brick were paramount, and so widespread did it become, that the Government Building Research Board conducted a series of tests of the relative strengths of brick and concrete, and this was the result: "The tests indicate clearly the great strength of even 6 to 1 concrete, mixed wet, in comparison to brickwork, the average of the two concrete columns being 1,370 lb. per sq. inch as against 700 lb. per sq. inch—the

average of the five brickwork specimens —i.e. approximately double." (*The Stability of Thin Walls.* Government Building Materials Research Committee, Special Report No. 3, 1921.)

With regard to the thermal conductivity of brick in comparison with concrete, a section of a concrete wall poured by the system adopted by my company was submitted to the Government Department of Scientific Research for determination of heat transmission. The result showed that the heat transmitted through 1 sq. ft. of the wall was ·328 B.T.U.'s per sq. ft. per hour for 1° F. difference in temperature, between faces, or 7·9 B.T.U.'s per 24 hours. This transmission through a 6½-in. concrete wall was 7·9 units, and through a 9-in. brick wall 16·3 units. It is thus shown that to the transmission of heat and cold a 6½-in. concrete wall made by our system offers more than double the resistance of a 9-in. brick wall; and no less a degree of superiority is manifested in the elimination of internal condensation.

The Borough Council of Croydon has concrete houses in Church Street which were built half a century ago, and they are an object-lesson on concrete construction. They stand solid and sound as any house in the district, showing fewer signs of wear and deterioration than brick houses built a few years ago. The tenant of one of these houses described it to a local newspaper as being "as solid as a rock and dry as a bone." They were poured *in situ* and not built of concrete blocks.

The question, "Are there many concrete cottages in existence?" can be answered by stating that nearly every city and town in Great Britain has included concrete houses in its building schemes, and where they have been poured *in situ* they have given unqualified satisfaction.

W. A. J. GAVIN,
The Seven Cities Housing Trust, Ltd.

Cost of Houses

SIR,—Mr. Williams, in his letter in your last issue, mentions the question of antiquated bylaws as having an effect upon the cost of building. This is undoubtedly the case, but it applies also to the whole system of building, which is equally antiquated. Building is a traditional craft occupation which is being only very slowly changed to meet new social and industrial conditions. Factory methods, where they have been applied to large-scale production of other commodities, have resulted in considerable reductions in cost, and with the extension of mass production, coupled with increased consumption, prices could be even further reduced. It has become necessary to apply this economic development to building as the old craft processes tend to relegate it to the realm of a luxury like most products of hand labour.

If a product is a necessity, failure to maintain an economic level having a proper ratio to all other productions and to wages and the standard of living may endanger the internal peace of the State. Housing must be placed in such a category, and progress in the economy of production has become an urgent need, whatever breaks with traditional methods and expression it entails. To achieve the desired result of cheaper housing, building must inevitably become a matter of the rapid assembly of ready-made parts. The producer and the consumer must adjust themselves to changed conditions, and vested interests in obsolete methods and unreasoned prejudices alike be abandoned. The problem should be faced with an entirely open mind; it is amenable to scientific and economic research, provided it is approached from the proper standpoint.

The demand for a higher standard of living on the part of the weekly wage-earner is the result of education and the subconscious suggestion of advertising; this is all to the good. The economic adjustments necessary to bring about increased purchasing power will have to be solved, not only in this interest, but in the interests of the principle of the expanding market as an essential for the modern commercial system. The difficulty is related to production. Our powers in this respect have increased amazingly in certain directions, but not equally all through, so the economic balance has been disturbed. Building is certainly one of the backward trades as regards relative economical production.

I agree with Astragal that architects are partly to blame; our eyes look backward rather than forward, and we fail to avail ourselves of modern means and methods and to give æsthetic expression to our age.

R. A. DUNCAN

Group Specification

SIR,—Being a student studying the subjects of quantity surveying and specification writing, I am at a loss to understand the divergence of ideas which have arisen in recent letters from readers under the above heading.

In your issue for July 9, Mr. T. Sumner Smith states: "If the object of a specification is to describe, in the main, the materials and labour not clearly defined upon the drawings . . ."; and in your issue for July 16 Mr. Lynn C. Doyle states, with reference to specifications supplied in and around Oldham: ". . . these specifications as a general rule describe only, and even then but indifferently, the things shown upon the drawings." Should not a specification describe in full the whole of the materials and give fixing instructions, irrespective of whether they are shown upon the drawings or not; and should not this also apply regardless of whether the bills of quantities do or do not form part of the contract? STUDENT

LITERATURE: SIXTH VOLUME OF THE WREN SOCIETY

RECENT research has made necessary the revaluation of several architectural reputations and the rewriting of the architectural histories. Attributions of authorship that have been accepted by writer after writer have now, by more thorough investigation, been proved to be erroneous. The group of buildings known as Greenwich Hospital, besides being an epitome of the development of English Renaissance architecture, provides several excellent examples of corrections that must be made in the future. It has been definitely stated by most architectural writers of the past that Inigo Jones designed both the Queen's House and the completed part of Charles II's Palace, and that Wren was responsible for the major part of the remainder. It has now been established by Mr. Gotch that John Webb was the sole author of Charles II's building, and the editors of the Wren Society volume now show conclusively that Vanbrugh had a much greater share in the design of the hospital than had hitherto been suspected. Mr. Bolton, in fact, says in the introduction that "the share of Sir Christopher Wren, apart from his general control as Surveyor-General and his official position as Surveyor to the Hospital, can almost be limited to the idea of the grand layout, more particularly with regard to the placing of the inner blocks in their relation to the main vista, and to the preceding great forecourt to the river."

There is no building in the country which has so complicated a history or on which so many architects have worked during a long period of years than Greenwich Hospital. The tangle of their various shares in the design would probably never have been unravelled without the help of some organization such as the Wren Society, as the information upon which judgment depended was scattered to the

four winds and could only be brought together by means of photographs. The illustrations, for instance, in the volume under review are taken from the collection of the Victoria and Albert Museum; the Royal Naval Museum, Greenwich; Sir John Soane's Museum, London; the Libraries of Worcester and All Souls College, Oxford, and from the Bodleian Library. Relevant extracts from the seven volumes of minutes of the Commissioners of Greenwich Hospital, now in the Record Office, are printed and take up some forty pages. This mass of material, here brought together for the first time, makes possible a critical examination of the authorship of the buildings erected by William and Mary and their successors.

When Dutch William and his wife decided to found an institution for the care of naval men disabled by war or old age, a Commission was appointed, John Evelyn, the diarist, being nominated treasurer and Sir Christopher Wren, surveyor (he offered to work gratis), and asked to prepare a scheme for adapting Webb's Charles II block to house the men. From the drawings that survive, and are reproduced in the volume, it is possible clearly to follow the development of the scheme by Wren and those who succeeded him. He prepared a plan on the lines of Webb's palace, ignoring the Queen's House and putting a domed building on the main axis and facing down an open courtyard towards the river. The scheme was opposed by Queen Mary, as it entailed the destruction of the Charles II wing and the blocking of the view from the Queen's House, and was consequently abandoned. Wren then prepared a scheme for adapting Webb's Charles II block and supplementing it by a lower building adjoining it, called the Base Block, and this scheme received the Royal assent in 1696 and is known as the Warrant Design. The next development was to duplicate this block on the other side of the axis of the Queen's House, forming a court 300 ft. square, partly enclosed on the landward side by the Chapel and the Great Hall, with wards beyond, arranged on the pavilion principle and connected by colonnades. In passing, one may remark that this pavilion principle of hospital planning was in advance of the time. These schemes were all prepared before 1702, when Queen Anne succeeded to the throne. On her accession the committee dealing with the hospital was reorganized and supplemented by additional members, including John Vanbrugh, who, as the minutes show, gradually took over the control from Wren, who ceased to attend in 1710, although he did not resign until six years later. Soon after his appointment Vanbrugh prepared a most ambitious and amusing scheme for completing the space between the river court and the Queen's House, which has been worked out by Mr. Bolton and reprinted as illustrations in the text; this scheme, however, came to nothing. As Mr. Bolton points out, Vanbrugh's exuberance was restrained by Wren's general supervision and by the standard set by the two earlier buildings that he had to respect. Those factors account for a higher standard of detail than one usually associates with Vanbrugh's work.

In the letterpress the editors have reprinted extracts from several works bearing on the history of the hospital. These include excerpts from Wren's *Parentalia*, and a rare pamphlet by Nicholas Hawksmoor published in 1728. The manuscripts printed include various papers by the architects and a memorandum by Sir J. Thornhill about payment for his painting the Greek Hall, mentioning that Reubens had £10 a yard for the ceiling of the Banqueting House. He eventually received £3 a yard for the ceiling and £1 for the walls.

The bulk of the text is taken up by the extracts from the minutes mentioned above. These are of first importance and give much information as to progress and methods of working. From them it is seen that the directors met frequently, sometimes once a week, made all the contracts and passed the accounts, and generally looked after the clients' interest.

The present volume is of the same excellent format as the preceding ones, but is considerably fatter, containing 102 pages of text instead of sixteen in the first volume, while there are fifty-three collotype plates where the first volume had thirty only. The editors cannot be sufficiently commended for their painstaking efforts, and it is to be hoped that the number of subscribers will increase to enable them to extend the work even further.

GRAHAME B. TUBBS

The Sixth Volume of the Wren Society, 1929. The Royal Hospital for Seamen at Greenwich, 1694–1928. Oxford, 1929. 102 pp., Frontispiece, and liii plates.

IN PARLIAMENT

[BY OUR PARLIAMENTARY REPRESENTATIVE]

Universities and the Road Traffic Bill

STEPS to safeguard the ancient fabrics of the universities from damage caused by vibration from heavy traffic were taken by the House of Commons on the Report stage of the Road Traffic Bill, when Mr. John Buchan moved an amendment to give the governing body of any university which receives grants from public moneys the right to make application to the Minister of Transport, and for the Minister to hold a public inquiry with a view to making regulations dealing with motor traffic in the area concerned. The principle behind the amendment was the simple one that where the State by a grant of public funds declares its belief that a university was doing work of national importance, it should make certain that the facilities for that work were not impaired.

The amendment applied to all universities in receipt of a grant, whether they were old or new, but it applied in a special degree to the older English universities where there were ancient fabrics situated often in narrow and easily congested streets.

In the case of the University of Oxford, continued Mr. Buchan, the situation was really grave. Oxford unhappily was the meeting-place of two great lines of through heavy traffic—between the Midlands to the South, and between London and the West. By-passes in themselves would not solve the problem, because a great deal of motor traffic came to Oxford for the purpose of visiting the city. Every day there were hundreds of private cars and scores of motor coaches full of tourists, and the High Street, Oxford, was as congested as the Strand in London. From that situation two very grave consequences followed. The first was that the fabrics, especially the ancient fabrics, were in danger of structural damage. The second was that academic life on these busy streets was practically impossible. The dreaming spires of Oxford had long since ceased to dream, or, if they dreamt nowadays, their dream must be nightmare ! He readily admitted that they could not restore the academic peace which Oxford and Cambridge enjoyed for so many centuries. Those days had gone, never to be recalled. But surely it was right that a university should be allowed to procure regulations so as to enable it to conduct its business in reasonable peace.

Sir John Withers, who seconded, said the position at Cambridge was exactly similar.

Mr. Morrison, the Minister of Transport, accepted the amendment, which was agreed to.

Housing Progress

During the discussion of the Scottish Estimates, Mr. Adamson, the Secretary

of State for Scotland, gave figures showing Scottish housing progress. He said that at May 31 last, under all forms of State-assistance in Scotland, 110,136 houses were erected. These probably accommodated about 495,000 people, or perhaps one-ninth of the working-class population in Scotland. But at least another 100,000 houses were required before housing conditions could be regarded as reasonably satisfactory. Prices continued to fall; during the last five years the average reduction in cost was estimated at approximately £75 per house. On March 30 of this year there had been approved, under the Housing (Rural Workers) Act for improvement or reconstruction, 4,184 houses, for which grants totalling over £336,000 had been advanced. Improvements had been effected to 2,406 of these houses, and grants amounting to £204,670 had been paid by the Government.

Mr. Hore-Belisha asked how many houses had been built during the twelve months ended June 25, 1930, showing separately the number that had been built with State assistance and private enterprise, respectively; and what were the corresponding figures for the previous twelve months.

Miss Lawrence said that figures for houses built without subsidy of a rateable value not exceeding £78 (or £105 in the Metropolitan Police District) were only available in respect of the six months' periods ending in March and September respectively. The figures for the twelve months ended in March were as follows :

Year ended March 31	Private Enterprise without State Assistance.	Private Enterprise with State Assistance.	Local Authorities.	Total.
1929 ..	64,740	49,069	55,723	169,532
1930 ..	90,086	50,124	61,850	202,060

Settling-Up Honeywood : ix

A SANITARY CONSULTANT COMES ON THE SCENES

BY KARSHISH

(H. B. CRESWELL)

Sir Leslie Brash, the owner, has made bitter complaint of the "extras," although he is accountable for them; and of the failure of the paint, although he ordered it in face of objections by his architect, Spinlove, and the builder, Grigblay. Complaint has also been made of smells in the house, which Brash attributes to "blemishes in the sanitary provisions."

BRASH TO SPINLOVE

Dear Mr. Spinlove, 14/6/26.

I write to intimate that some weeks ago a medical practitioner, called in to attend a member of the domestic staff who had developed asthmatic symptoms, informed Lady Brash that attacks of this disorder may be provoked by *defective sanitary provisions.* This practitioner is not our own medical adviser, but is employed by me to minister to the domestic staff, and since his responsibilities are small his fees are, of course, low; but I understand he has good credentials and is well thought of by the local population, among whom —and this is of special import—he *must have gained exceptional experience of the effect of obnoxious effluviums.* His statement to Lady Brash has, therefore —you will not be surprised to hear— definitely established my most unfavourable prognostications.

As you had previously intimated inability to determine what curative measures to adopt, and Mr. Grigblay had no recommendations to propose, I communicated with Messrs. Quince and Jarrad, Consulting Sanitary Specialists. These gentlemen are employed by certain of my acquaintances, and also by Royalty and by members of the aristocracy, and *any* opinion of theirs is accordingly conclusively final. Mr. Jarrad attended to the matter himself personally, and made exhaustively thorough explorations and tests, and I enclose his report. I make no comment of any kind whatever. The report is exactly what I expected; the sanitary work has been disgracefully badly done, and will have to be drastically renovated— however, I will make no comment. My architect has failed me, the builder, instructed and supervised by him, has defrauded me, and it is a providential mercy that we are all alive and in relatively good health today; but, as I say, I make no comment, but confine myself to requesting you to *read* the report (enclosed)—simply to read what these authoritative experts say of our sanitary provisions, and then to favour me with explicit assurances that the necessary renovations will be put in hand at once, and of the date when they will be completed, as it will be necessary to vacate the house. No doubt you may wish also to offer some observations justly appropriate to the occasion.

As the necessity for employing the services of Messrs. Quince and Jarrad was due to remission of care on the part of Mr. Grigblay in performing his duties, and his refusal to give attention to the emendation of defects, I shall most certainly deduct their fee of twenty guineas from the next payment due to Mr. Grigblay.

Yours sincerely,

We may conclude it was under pressure from Lady Brash that the doctor yielded the admission that defective drains may precipitate attacks of asthma in a person subject to them.

QUINCE AND JARRAD TO BRASH (ENCLOSURE)

Sir, 12/6/30.

We have the honour to say that in accordance with your instructions we visited Honeywood Grange on the 3rd of this month and made an exhaustive examination of the sanitary works, and now have the pleasure to enclose our Report.

We have the honour to be, Sir,

Your obedient servants,

At first glance, this letter might be a command to attend a State function at Buckingham Palace. It is beautifully typed in green on an exquisite linen paper self-edged like a bank note, and is headed in embossed gold lettering, with an address adjoining Cavendish Square and with the statement that Messrs. Godolphin Quince and Hartington Jarrad are Consulting Sanitary Specialists, Patronized by Royalty and by the Nobility and Gentry.

The report covered by the letter extends to seven typed foolscap sheets, with a printed heading reproducing the intelligence gilded on the letter, and stating, in italics, that passages typed in red are so rendered for the purpose of calling attention to them. A glance shows that these red letterings all refer to points to which Messrs. Quince and Jarrad take exception ; that there are a considerable number of such passages ; and that, for greater emphasis, they are all typed in capitals.

The report is evidently based on an exhaustive survey and is the skilled work of men of highly specialized knowledge and wide experience in a restricted field ; but while Spinlove's task was to provide Honeywood with a well-devised and soundly-executed drainage system that was in no way unnecessarily costly, Quince and Jarrad pursue a fantastic ideal of theoretic perfection in which cost has no consideration. With that qualification, and except that it makes no allowance for those differences of opinion which exist in the theory and practice of

sanitation, as in everything else, and confines itself to adverse criticism, the report is fair. It does not, however, except by implication, say what should be done to meet the objections raised; for the reason, no doubt, that Messrs. Quince and Jarrad were not asked to reconstruct Honeywood's drains, but only to report on them.

There would be no purpose in here reproducing the report, which describes, first, the system Spinlove has adopted; second, the layout of the drains; and third, every detail of the work. It is the passages typed in red which have scared Brash and will trouble his architect and which alone concern us; and as Spinlove has to meet these criticisms, we may expect to learn all we want to know of them from future letters.

SPINLOVE TO GRIGBLAY (PERSONAL)

Dear Mr. Grigblay, 15/6/26.

I am much disturbed to receive the enclosed letter and report of Quince and Jarrad from Sir Leslie. They make out that everything is wrong. Will you read and let me know what you make of it all?

Yours truly,

As usual, when in difficulties Spinlove looks about for advice—a bad habit, for it is only by settling things for himself that he will learn to settle things. At the same time, he is right to confer with the builder on this matter before acting.

GRIGBLAY TO SPINLOVE (PERSONAL)

Sir, 17/6/26.

I return herewith Quince and Jarrad's latest. It is their usual pack of nonsense, but it may be an awkward job to get the old gentleman to agree. I think, sir, I had better have a talk over. I can make convenient on Saturday at 11.30 if you will kindly confirm by phone, and oblige,

Yours truly,

We may suppose that Spinlove gained great advantage from his talk with Grigblay.

SPINLOVE TO QUINCE AND JARRAD

Dear Sirs, 21/6/26.

I have received from Sir Leslie Brash your report on the drains at Honeywood Grange, of which house I happen to be the architect. I must protest that it is most unfair of you to give mere differences of opinion the appearance of condemnations. You find no actual fault in the arrangements anywhere, and yet you have led my client to believe the drainage of his house is insanitary. You even tell him that the joint of lead waste to gully has not been made, without troubling to look to see whether it has been or not.

Yours faithfully,

It was undignified of Spinlove to write this letter, and also not worth while, for Messrs. Q. and J. probably receive a good many like it.

QUINCE AND JARRAD TO SPINLOVE

Sir, 22/6/26.

We have the honour to acknowledge your letter informing us that you do not agree with our views *re* drains Honeywood Grange, and which we may say we are not surprised to hear, as we happen to know our own business.

The differences of opinion you refer to are quite common and have no signification whatever, being quite usual with architects.

We have the honour to be, Sir,

Your obedient servants,

Spinlove asked for something of this sort. Q. and J. do not, it seems, use their gold-embossed bank-note stationery for this kind of letter.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 22/6/26.

I could not write to you on the subject of Messrs. Quince and Jarrad's report until I had thoroughly investigated the points raised.

I do not think that you yourself read the report closely, or you would not have formed the opinion that the drains are insanitary. Although the report is drawn in such a way as to lead you to a contrary impression, no fault is anywhere found, as you will see, either with the system or with the work; and attention is called to only *two* "*defects*." One of those defects is not a defect in the drains at all, but a defect in Mr. Jarrad, who tells you that a joint has been left unmade without troubling himself to see whether it has been or not; the second so-called "defect" is not an actual defect as, if it exists, it refers only to tests applied by Mr. Jarrad, and *not* to the normal use of the drains.

I am aware, Sir Leslie, that you will consider that I am on my defence, and will be reluctant to accept my views; but I am glad to say that I am not called upon to defend myself, and for your own peace of mind I ask you to hear me out with patience, for I shall confine myself to showing what the report does actually say. Before I do this I should like to point out that the whole of the matters stressed by red lettering, except the two above mentioned, are mere expressions of *opinion*, and do not involve the question of sanitary soundness in any way whatever; and also that this difference of opinion is in all cases due to the fact that while I designed the system so as to avoid unnecessary expense, Messrs. Quince and Jarrad's ideas are of the most extravagant and costly kind. I enclose the report and take the red-lettered points in their order.

"The aerobic filter might well be bigger and the tipper set 9 ins. higher. Gun metal bushes and trunnions are desirable, as in course of time rust will interfere with action of tipper."—The filter and tipper are the standard device of Wreek & Co., who are leading specialists in the work. I cut out the bronze bushes, etc., as being needlessly costly.

"We prefer detritus chambers and manholes to be lined with glazed brick. Also the effluent channels would be better in glazed ware. We recommend tallow for sealing manhole covers."—Glazed brick is expensive, and here quite unnecessary for sanitary efficiency. The rims are sealed with axle grease, which is usual. The sealing, in any case, is a counsel of perfection.

"The glazed channel discharging waste from scullery sinks over grease trap is unnecessary and objectionable." As this channel is required by the local Sanitary Authority it *is* necessary, and the Local Government Board does not agree that the arrangement is objectionable or it would not describe it in its Model Bylaws.

"The ventilation of the drains is sluggish. We recommend the up-and-down-cast system in preference to the up-cast here employed." — Messrs. Quince and Jarrad are in a minority among sanitary engineers if they hold this opinion; the up-cast is almost universally employed. The sluggishness was due to Messrs. Q. and J.'s representative having wetted and thoroughly chilled the pipes before he tested for ventilation. Mr. Grigblay will at any time demonstrate to you that the system ventilates properly.

"The lavatory wastes discharge over open rain-water heads near to windows. This arrangement is most objectionable, as when the down pipe and head get fouled, air passing up the pipe will smell offensively. We recommend lead waste pipes properly ventilated and discharging through inlets under grids of gullies as employed near the front entrance."—This condition *may* arise in the future. When it does, it can be readily cured by cleansing the pipes. It does *not exist today*. The arrangement I have adopted has much to recommend it, in addition to effecting great saving in cost. As nearly all the bedrooms have lavatory basins, Messrs. Quince and Jarrad's device would cover the elevations with a network of pipes with ventilating branches standing up above eaves.

"We much prefer and always recommend cast-iron waste and soil pipes in place of the lead used at Honeywood."—As in an hotel or workhouse! The associations of domestic architecture favour lead, and Messrs. Quince and Jarrad do not say—and cannot say—that lead pipes are not at least as sound as any other.

"The lead bath and lavatory waste by front entrance has been merely pushed through the gully inlet and not jointed to it."—This is not the case. A flanged

ring has been wiped to the lead and jointed to the stoneware in cement, as anyone could discover who wanted to know.

"The plate on clearing eye at the junction of the soil pipe vent by north-east gable has not been properly bedded, and allows foul air to escape from the drain."—I will have this plate taken off and re-bedded, but as there is, for all practical purposes, *never more pressure inside the open vent than outside* leakage cannot take place; if there were any leakage it would be of no consequence as the whole purpose of ventilation is to prevent the air in the drain from getting poisonous, and if it were foul, the position of the plate at the side of the gable and above the main eaves gutter would still make the matter of no consequence. The leak can only exist when the ends of ventilating pipes are stopped and air pumped into the drains under pressure.

I have written at some length, Sir Leslie, but at not, I hope, too great a length. If any doubts still remain of the soundness of the drains, I hope you will let me know what they are.

This letter would have been more dignified and much more impressive if Spinlove had denied himself the pleasure of aiming back-handers at Messrs. Quince and Jarrad, whose destruction would also have been more complete if Spinlove had made his points coolly instead of with warmth. The tone of the letter is unprofessional; but Spinlove's relations with Brash—who long ago made fervour, rather than decorum, the characteristic note of their interchanges—excuse it. Except for this he seems to have done extremely well and has given Brash grounds to be most grateful to him. With Grigblay's help and guidance—the "defect in Mr. Jarrad" obviously originated with Grigblay—he has thoroughly mastered the facts, and applied himself to make a most effective display of them; and he accomplishes a difficult task with a tact which even touches on charm—a most unusual achievement for him. It has been apparent that Spinlove is decently educated, and here we particularly see his advantage in this respect. The position is an awkward one, for Brash has been led by Spinlove's own lack of gumption to doubt his architect's capacity in matters of sanitation and, as we know, has a high opinion of Quince and Jarrad, rooted in snobbery and therefore almost indestructible. Brash has no technical knowledge of drains, yet it is for him to decide, between the conflicting opinions of architect and expert, whether his drainage arrangements are perfectly sanitary, or not; and if Spinlove cannot re-establish himself with his client and persuade him to his views, it is difficult to say what may not happen.

GRIGBLAY TO SPINLOVE

Dear Sir, 21/6/26.

You directed us to let you know if we were asked to make any structural alterations at Honeywood. Her Ladyship lately asked us to fix a grate she has bought, in the box-room, and this we have done with a bit of pipe carried well up into the flue serving the small servants' bedroom (No. 5) on the second floor, by her Ladyship's orders. We do not know whether this is what you mean by structural work, but think well to mention the matter. Her Ladyship says the fireplace in No. 5 will never be used.

Yours faithfully,

A fireplace in a box-room is scarcely to be found in the most lavishly equipped house, and it is a mystery how anyone could imagine any kind of use for one there. Two fireplaces connected to one flue are likely to give complete satisfaction only while neither of them is in use.

BRASH TO SPINLOVE

My dear Mr. Spinlove, 24/6/26.

I have to confess that I read your communication anent sanitation with some impatience, but after carefully re-perusing your arguments I am inclined to regard Messrs. Quince and Jarrad's proposals as unnecessarily redundant. Although I make no pretence of being a sanitary expert myself, I certainly agree with you that excessive costliness of refinements are inappropriate when not visually evident. There are certain aspects of the matter I desire to discuss with you, but so far as I can judge you have demonstrably answered Messrs. Quince and Jarrad's criticisms, and you will be glad to know that the odoriferous conditions are now rapidly ameliorating; in fact, they appear to have eventually dissipated, for though Lady Brash has been expectantly apprehensive no undesirable olfactory evidences have, I understand, been lately detected.

In view of the fact that the sanitary provisions are not—as Messrs. Quince and Jarrad led me to suppose—defective, I shall expect those gentlemen to allow me a substantial discount off the heavy fee of twenty guineas they have the effrontery to ask for their superfluous services.

Lady Brash informs me that we are to anticipate the pleasure of your company during the week-end. I shall then have an opportunity of discussing various matters with you.

With kindest regards,
Yours sincerely,

This is a triumph for Spinlove. It is to be hoped that Brash is grateful to him. He certainly seems to be; but his unusual good humour may be chiefly due to his having got this tormenting question of the drains settled, and Lady Brash appeased. Why these troublesome smells should so suddenly disappear is a mystery; but then it is also a mystery why they should ever have existed—if they ever did exist outside Lady Brash's imagination.

Messrs. Quince and Jarrad, by Spinlove's showing, here cut a sorry figure; but in point of fact they belong to an order of men to whom society has been in the past greatly indebted. It has to be remembered that what are now commonplaces of sanitary decency were, sixty years ago, only taking shape in the minds of scientific inquirers; and that forty years ago the general application of modern principles of sanitation was an innovation bolstered by public panic. In those days doctors faced with the complicated symptoms of patients who had nothing wrong with them had only to say "Are you sure there is nothing wrong with the drains?" to escape with honour from the field. The nobility and gentry—who we noticed are patrons of Quince and Jarrad—were obsessed with drains, which thereupon became fashionable, just as appendicitis did a few years later. Country gentlemen talked drains over the wine after dinner, compared drains on their way home from church, and rivalled one another in the renown of their sanitary adventures. There was scarcely a house in the country which was not, according to present ideas, poisonous; and none that was what we would consider sanitary. Throughout the country, people who would spend nothing on anything else were eager to celebrate themselves with drains, and this work was in great measure done—and thoroughly well done—by the forerunners of Quince and Jarrad.

The firm's fantastic test-exactions and extravagant ideas are also, for them, unavoidable; for if after they have approved the sanitation of a house the drains are surveyed by another expert in order to satisfy the covenant of a lease or conveyance, or because of a suspicious case of illness, and this rival expert by more exacting refinements of test or stringency of standards, reports a defect or imperfection, Quince and Jarrad might be liable for damages, and in any case the reputation upon which their very existence depends would suffer. This danger is so imminent that firms of the standing of Quince and Jarrad will apologize for the stringency of their tests and the triviality of their objections even while making them. This is perfectly reasonable. The expert tells the owner exactly what sort of drains he has got; that is the expert's responsibility: the owner decides whether to risk living in the house or not; that is the owner's responsibility, and the expert's comment: "I should not hesitate to live there myself," and so forth, does not shift those responsibilities. If Spinlove is ever called upon to re-drain a house, he would benefit by knowing this—however, that is not likely. Old houses have nearly all now been re-drained, and new ones do not need it.

[NEXT WEEK: X—THE BATTLE OF THE BRICKS]



The unlimited skyline of New York: a study of the massed skyscrapers of Lower Manhattan, as seen from Governor's Island.

THE ART AND THE ECONOMICS OF SKYSCRAPERS

BY GEORGE E. J. PISTOR

Mr. Pistor is Treasurer of the American Institute of Steel Construction, Incorporated, and this article is condensed from a lecture delivered by him at the Institution of Mechanical Engineers, last week, before an audience including representative architects and consulting engineers.

THE American skyscraper today is the product of the best economic engineering as well as artistic knowledge. As an engineer and a steel constructor I may be inclined to accentuate some things about building which would be overlooked by another, but experience with modern-day practice compels me to confess that an engineer alone would not produce that kind of structure which might prove highly successful. As an engineer, I know that tall buildings can be safely built to a height of 2,000 feet. Skyscrapers with pent-houses to rival mountain lodges can be built today, because we have at our command the most perfect building material known to man—steel; but whether such buildings would pay on the investment, or whether they could be made to appear æsthetically satisfactory, is a matter that must first be passed upon by others.

The story of steel began in the town of St. Pancras, in England. It was there, in 1854, that one Henry Bessemer (later to be knighted and famous throughout the world) made his great discovery, the discovery which he came on in his small ironworks, that if he blew a blast of air through molten iron he oxidized and drove off a number of the impurities which made iron an uncertain substance chemically, and to all intents and purposes produced a new substance—steel. The process of Bessemer, and of Kelly, who made an almost simultaneous discovery, is old-fashioned and unsatisfactory now; modern metallurgy has far surpassed it in wonders. But it was the start. From that time on, the Woolworth Building was a possibility. And trains that travelled sixty miles per hour. And one automobile for every five people in our country. And man's conquest of the skies.

The earliest beginnings of metal frame construction are probably to be found in the building erected in 1854 in New York for Harper and Brothers, where cast-iron columns were used as supports. Wrought-iron beams and columns were used in buildings for the Centennial Exposition in Philadelphia, in 1876. By that time iron was beginning to be a fairly common building material. But there was another problem that had to be solved before engineers were ready to construct tall buildings. That was the problem of getting people from floor to floor without stairways. One of the earliest elevators known was the one installed in the ornate old Fifth Avenue Hotel in New York, in 1859. It was built by Otis Tufts and cost $25,000. A steam engine ran it by turning an immense vertical screw—whence its name, vertical screw railway—much as a nut is moved up and down on a bolt by turning the bolt. The first suspended elevator, the forerunner of the kind we know today, was installed seven years later in the old St. James Hotel, New York.

Then came foundations. Simply digging a hole in the ground and building up masonry to support the building was not sufficient for more than a few stories. The foundation problem was not solved until 1880, when the Federal Building in Chicago sank considerably, and caused great apprehension among builders and engineers. That started an investigation from which developed a wholly new and modern method of foundation building. Nowadays foundations are, in practically all instances, placed under the foot of each column in the building, each one independent of the others. These footings are carried down into the ground until they reach a safe foundation. In some places, like New Orleans, it is necessary to sink piles until they strike a bottom solid enough to carry the weight, or to a depth which affords a skin friction sufficient to support the building.

With elevators, foundations, and the new structural steel, the time was ripe for the first true skyscraper. The Home Insurance Company, in 1883, put up a building in Chicago in which were used, for the first time, some of the skyscraper principles—primarily that of supporting the entire weight of the walls on a steel framework, instead of making the walls themselves carry the weight of the building. The fourteen-story Tacoma Building in Chicago, erected in 1887, carried skyscraper principles still farther, and is generally known as the first real skyscraper. The Tacoma Building was supported entirely by a metal frame, and the walls did no more than curtain off the interior and protect it from the elements. So sound was its design that when the owners, the University of

Chicago, demolished it recently to make way for a twenty-four-story building with a twenty-three-story tower, the framework was found to be in perfect condition.

To build higher and to build larger was only a matter of further experimentation, for engineers realized that in steel they had a material upon which they could depend absolutely. Accessories, of course, had to be improved, particularly the elevator. After Tufts' vertical screw railway type came the hydraulic plunger, and later the electric elevator. Electric elevators have been developed to move at the astonishing speed of 1,000 feet a minute, with an acceleration so accurately controlled that passengers are hardly conscious of the rate at which they are travelling. No building is yet equipped with elevators as rapid, but those in the towering new sixty-eight-story Chrysler Building in New York move at the rate of 700 feet a minute. When the legal limit is raised they can travel at the rate of 1,000 feet a minute. Elevators now being designed for the Empire State Building will be able to travel at the rate of 1,200 feet a minute.

As a matter of engineering, I could leave the story with you at this point, and you would undoubtedly agree with me that it has been a fascinating and dramatic story. It is fascinating because of the infinite possibilities of this modern material, steel, and the exact knowledge that man has acquired of it, an exactitude which has been impossible with any other building material. It is dramatic because of the suddenness with which this new art of skyscraper building has come upon us—a type of building that was unknown fifty years ago. But today the skyscraper is indigenous to every city in the United States, and is being built in many of the important cities of the world. There are today more than 4,778 buildings in the United States of ten stories and over in height, and of this number 2,479 are in New York. Forty years ago a ten-story building was thought to be a skyscraper. Today we are building office structures eighty and more stories high.

In the future we will build even higher. I say that, not upon my knowledge as an engineer. But economists, who are today called in for advice, tell us that we must build higher if we are to earn a proper return upon the ever-increasing land values in our urban centres.

We had our critics who objected to the tall building from the beginning, and condemned it as the source of most evils of our city life, and it is only recently that an endeavour has been made to lay the real facts before the public.

It may be interesting to know that the first attack of this group was chiefly directed against—so the critics stated—"the way they disfigured the streets and against the possibility of a catastrophe involved in the collapsing of one of these monsters on a crowded street." These criticisms amounted to nothing more than a prejudice against the new. Then came the criticism that these tall buildings shut out the light and air, and were thus harmful to the health of the public. Lately the traffic conditions have become almost intolerable in our cities, and again the skyscraper was blamed. The congestion argument has become the chief objection of those with conscientious scruples against the tall building.

In the matter of light and air it will be admitted, by all, that this applies only to the few lower floors—and that applies equally to buildings of limited height—but, as we reach the upper floors of a modern skyscraper, we attain the maximum of sunlight and air, and also a cheerful outlook. The higher the floor, the more permanent are such benefits.

The more modern buildings have such an arrangement of windows as further to assure an abundance of sunlight. Also, the modern skyscraper makes possible provision for artificial illumination and ventilation and atmospheric control, so as even to excel the natural light and air, and thus afford the possibility of having the atmosphere of mountain resorts right in the heart of New York City.

The possibility of the collapse of one of these buildings upon a crowded street was at one time held up as a serious objection to building them. After the experience of two generations this fear has been all but forgotten. Engineers have been able to convince the public of their ability to design these structures with absolute safety.

We still hear of the fire hazard and the danger to life of the occupants due to their inability to reach the ground in safety. All of our modern skyscrapers are built of fire-resisting material, and the trend in the furnishing of the offices is towards the non-burning kind. Of course, we still have much of the contents that will burn, and should a fire start it is necessary to confine it, and either let it burn out or have it extinguished. The advances made in fire-resisting construction and fire-fighting equipment have reduced this menace to a minimum, so that, today, the fire hazard is much less in the modern skyscraper than in other types of building.

Now just a few words regarding the congestion problem. This problem is not new, and was present in our various cities long before we had any buildings over three or four stories high. As far back as the time of Julius Cæsar, Ancient Rome had this problem to contend with, and many of the traffic regulations which we think modern were resorted to at that time. Thus history tells us that Rome had traffic policemen, taxi stands, one-way streets—also regulations that specified, due to the narrowness of the streets, merchants had to make their deliveries at night. In our own country this problem existed with bus and horse-car lines and ferry-boats, fifty years ago.

In New York City we find more serious congestion on Fifth Avenue and in the Times Square section than we do in the foot of Manhattan where most of the skyscrapers are. For the greater part of the day the department store sections are by far the more congested, and in the evening you find the congestion in the theatre district where there are few, if any, tall buildings.

There is no wonder that architects at first were somewhat at sea how to treat this (then new) type of housing; and many odd-looking structures—yes, even monstrosities—were built.

In more recent years the zoning laws effected in New York City have put certain restrictions on the shape and height of buildings. One of the most striking of these restrictions is the limitation in size of a tower to not more than 25 per cent. of the total lot area, but which may rise to an indefinite height as long as structural safety and economic conditions are satisfied.

Most foreign architects will concede that in the modern skyscraper America has contributed the most impressive and the most worth-while style since the Renaissance. There are many eminent authorities to bear me out, and practically all the worth-while architects in other countries have expressed their appreciation of the design of the American skyscraper. It is today ushering in a new era in architecture.

In 1934 we shall celebrate the fiftieth anniversary of the invention of rolled steel shapes and the erection of the first American skyscraper. Though possibly ugly at first, architects have attained such skill in using the material at their disposal that to-day this tall-building architecture is universally held up as a great contribution to creative art.

Those of you who have visited the States, and viewed the skyline of New York as your ship moved up the bay have undoubtedly been impressed by the courage of those who have dared to build so high. You who are yet to visit our shores I hope will look forward to that experience. Above all, however, I hope you steel constructors will not long permit us to enjoy the exclusive honour, but will take advantage of our experience and improve upon that which has already been tried and found expedient, economical, and of unique architectural merit.

THE SPECIFICATION WRITER

The Group System: iii

BY A. SEYMOUR REEVES

GROUP II:

INTERNAL FINISHINGS (continued)

AN alternative method which has found some preference is that which separates surface finishings from doors and windows. (This method is not contained in the Report of the Conference already mentioned.) When this order is adopted the first schedule covers surface finishings only —ceilings, walls and floors, with cornices, dado or picture rails, and skirtings. This is followed by separate schedules, respectively, for windows, doors, fittings, and fireplaces. Otherwise the principle follows the plan previously outlined. When dealing with surfaces, it is convenient in some cases to separate each floor; in other cases two or three floors can be dealt with in one group. Some prefer to omit any reference to radiators or lighting points at this stage, and to give this information under the respective services only.

STAIRCASES

A section will be needed for stairs and steps (other than steps in doorways, which will have been dealt with under doors). The definition will cover both construction and finishing—timber, concrete or steel—as well as balustrades and all work arising.

PARTITIONS

A separate section for partitions will almost certainly be necessary if some of them are framed and glazed. Otherwise it may be possible to cover this section by general clauses. All the work would be defined here irrespective of trade.

All matters concerning the first two groups—viz., structural and carcass work, and finishing—having been dealt with, the third group can be commenced.

GROUP III:

ESSENTIAL SERVICES

Under this head will come heating, ventilation, lifts, electrical and sanitary services, or any other special service. Whether hot-water service is best dealt with under heating or under sanitary service is a point to be decided by the particular circumstances, which are bound to vary.

The builder's work in connection with each service should appear therewith and follow the information upon the installation of the service concerned. Thus, pipe trenches, boiler seatings, or similar work arising from the heating system, would appear under that service, and both structural and finishing items would be defined.

Under sanitary service, the internal work is first dealt with, and this covers all water supply and attendant items such as pipe casings, cistern casings, etc. In the case of fittings, attendant work is described therewith; thus, when the sink has been specified, the draining boards and any special work on wall at back of sink would be defined.

Soil pipes and bath or other waste pipes, although actually external, are more conveniently dealt with under internal work, of which they are integral parts.

The external sanitary work follows, with all drains, gullies, manholes and attendant work.

While the three main groups already outlined will suit the large majority of contracts, other subsections, in addition to those indicated, may be required. Thus, a section could be included for boundary walls and fences, or one for roads or garden work. In some cases a separate section for reinforced concrete, or for constructional steel, might be advisable, and the principle of covering all attendant work would still be followed.

In the case of a contract in which a varied scheme of decoration was to form an important feature, a separate section entitled "Decoration" would be helpful. This would be suitably placed at the end of the finishings, and would obviate any reference to decoration in the schedules of surface finishings.

There is already a good deal of agreement as to the advisability of describing attendant work on heating, or any other service, in connection with that service, instead of dissecting the items and distributing them throughout different trades. There is also some agreement as to the advantage gained by a schedule of surface finishings in group form instead of by separate trades. It is a fact that schedule methods for specifying windows and doors are being more and more adopted. In many instances these group methods are combined with trade classification, and this sometimes involves double work on the part of the specification writer.

None would contend that the system which has been outlined is perfect. The examples given should be regarded as illustrations rather than final models, and doubtless improvements will occur to many. But it does provide a definite order or basis, and it is certain that a specification writer working on these lines is far less likely to miss out essential items. Specifications on a group basis may differ in most of the details and still preserve a general consistency as to the order or placing of information. Further changes in building methods may render trade classification even less suitable than it is today, but such changes would not affect group classification.

An instance of the advantage of the group system may be given by reference to a housing scheme. In this scheme several types of cottages were employed; the plans of each type were similar throughout, but the elevations were varied by differing facings. Two kinds of brick facings, as well as rough cast and cement facing, were employed. To indicate the intentions in this direction many drawings would have been necessary if the usual trade classification had been the basis of the specification. The difficulty was met by a schedule of facings, each block of cottages being identified by a number or letter on the layout plan.

(Concluded)

PROVISION against stresses that may be set up in a building by wind in exceptional situations is a subject that occasionally engages the attention of the designer and specification writer. For their computation a number of data exist, but they are not always at hand when required. In THE ARCHITECTS' JOURNAL *the matter was practically discussed under the heading, "Wind Pressures on Buildings," by Norman Davey under the dates of March 6 and 13, 1929. A study of the magnitude and probable frequency of high pressures on tall structures has been recently undertaken by A. Morris Thomas, and though made with overhead electrical power lines directly in view, the conclusions are equally applicable to towers and high buildings generally.*

The author recalls that the L.C.C. Regulations enjoin the ability of any building to withstand a wind-pressure of 30 lb. per square foot against the upper two-thirds of the exposed surface. Arguing from such statistics as are available, he estimates the chances during the next 100 years of pressure about 60 ft. above ground level (at Southport), exceeding 25 lb. per square foot, and puts it at twelve occasions. At a height of 100 ft., however, the probability that a pressure of 32 lb. per square foot will be exceeded is given as once in ten years, and of 39½ lb. once in a hundred years.

A valuable series of tables and graphs illustrates the paper, which is Technical Report Ref. F/T 42 of the Electrical Research Association, and is printed in the current issue of "World Power."

Horizontal Ventilation

IN THE ARCHITECTS' JOURNAL for December 25, 1929, reference was made to the Knapen system of damp removal and prevention in buildings. A concomitant of damp removal from interior walls is a suitable means of ventilation. Accordingly, a method of ventilation was developed in conjunction with the system for damp removal.

The primary object of ventilation is the removal of air which has become fouled by breathing and heating, and the introduction of clean air at a suitable temperature. The air which occurs in a confined room varies in density, increasing towards the floor. The upper layer consists of the warmer and lighter gases, whereas above the floor there is a layer consisting of the heavier gases and containing amongst others carbonic acid and steam. It may be taken that the distribution of these gases laterally is fairly regular, and that replacement demands their complete removal from all parts of the room.

The means of ventilation which exist in all rooms are doors and windows, and in some cases fireplace chimneys. The opening of an ordinary window at both top and bottom, with the door closed, allows egress of the hot air through the top part of the window, and the ingress of an equal quantity of cooler air through the bottom. The effective operation of this movement, however, is practically confined to the width and depth of the window and does not necessarily penetrate far into the room until the diffusion of the gases has had considerable time to proceed. As a result, corners of the room, particularly when they are damp and cold, are not subjected to an appreciable circulation of air. The weight of air in the corners being greater than that in the warmer parts of the room, a considerable disturbance of the atmosphere is necessary in order to shift this heavier air.

In the Knapen system of differential horizontal aeration, use is made of the fact that almost invariably there is some measurable difference in the temperature of the air at opposite sides of a building. The air on the colder side will be denser and therefore heavier than on the warmer side and will consequently exert the greater pressure. This difference may be very slight, but a difference in temperature of only 1° F., with its proportionate variation in density, will displace air in the lateral direction.

Taking into consideration this fact, inlets and outlets are fixed in certain well-defined positions on both sides of the building. The general disposition of these openings is shown diagrammatically in the figure, from which it will be noticed that the apertures in the outside walls are set in a slanting direction, while those in the partition walls are carried straight through. The top apertures are usually placed about 8 inches from the ceiling and the same distance from the angle of the walls, while the lower apertures are placed as near the floor level as possible, and vertically below the top openings. The middle apertures are placed about half-way between the two, and on vertical lines equally distant from the top and bottom apertures. Openings are provided in the partition walls at top and bottom only.

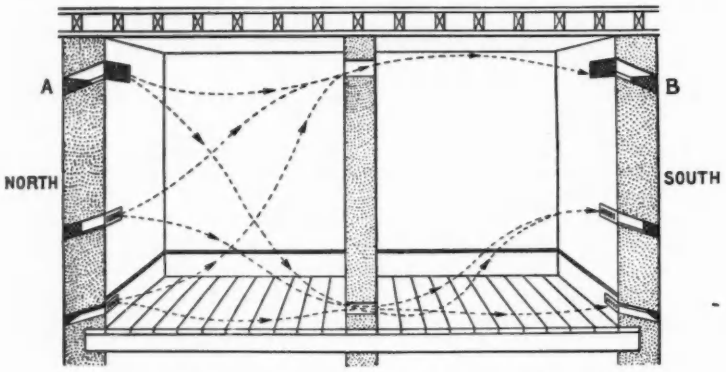


Diagram illustrating the installation and operation of the Knapen system of differential horizontal aeration.

With this disposition of inlets and outlets, the effect of the pressure difference at opposite sides of the building is to create a gentle flow of air from the high-pressure side, displacing air somewhat on the lines shown in the diagram, through the openings to the low-pressure side. In positions where strong winds are frequent, the outside apertures are fitted with adjustable grids or screens, to prevent wind from penetrating into the room, and so allow the ventilators to operate normally. The sizes of the openings are carefully proportioned to ensure the necessary flow of air without producing direct currents and the sensation of a draught. Also the arrangement of the inlets and outlets is such as to ensure that every portion of the room has its air content periodically removed and renewed. As the difference in temperatures upon which the movement of air depends is never very great, the air currents are consequently slow, but they are continuous and regular and diffuse throughout the apartment. Moreover, by this method ventilation is not confined to one room, and can also be arranged to prevent the ingress of vitiated air as from kitchens and similar places.

In dealing with basements and back rooms, which open into yards and spaces with restricted air supply, the apertures near the ceiling are put in communication with the yard or street by means of slanting ducts, and the openings near the ground, as well as the intermediate ones, are extended up to the roof by means of vertical shafts or ducts. By this means the warm air near the ceiling, being lighter than the air outside the room, is displaced outwards, and the resulting depression produced on the lower layers causes the denser air in the vertical shafts to descend, introducing fresh air at the bottom and lifting the foul air upwards for discharge. In this arrangement it is generally convenient to dispense with the middle row of openings and utilize only a single row placed between the usual locations of the bottom and middle rows.

A. H. H.

DEMANDS for Portland cement in ever-increasing quantities have sometimes resulted in consignments having been delivered direct to building jobs while still appreciably hot to the touch; and in order to resolve doubts as to the desirability of using cement in this condition, tests have been carried out at the Building Research Station. The general conclusion reached is that no harm is likely to result from the use of "hot" cement. The results of the tests are published in Building Research Bulletin No. 7 (H.M. Stationery Office, price 4d.).

RECENT WILLS

Mr. John Avenel Wickham, C.B.E. (48), of Westholme, Beverley, Yorks, Chief Engineer for Docks of the L.N.E.R. at Hull, left £20,092 (net personalty, £19,410).

Mr. Godfrey Charles Lambert, of Woodcote, Esher, and of Henrietta Street, Covent Garden, W.C., architect and surveyor, left £46,326 (net personalty £43,226).

QUESTIONS THAT ARISE

Zoning

S. K. writes: "*What is the meaning of the phrase 'zoning' that one reads of in American building papers?*"

Zoning originated in America, where it was discovered that the erection of high buildings was transforming the streets into sunless, windswept canyons. The authorities regulated the height of the building frontages to the width of the streets. These regulations vary in different districts or zones; in some a building may not rise vertically more than one-quarter the width of the street, and after that must be set back before going higher. In other and more busy districts the building may rise two-and-a-half times the street width vertically. The set-backs vary from 1 ft. rise for 2 ft. set-back to 5 ft. rise for 1 ft. set-back. It is also permitted to build a tower provided that the base does not cover more than 25 per cent. of the ground area.

Some difficulty was experienced in legislating for corner sites where the streets were of unequal width, but it was finally agreed that the set-back provided for the wider street might be continued for a horizontal distance of 150 feet up the narrow one.

Actually, this law has a restrictive effect on the height of the buildings, for the cost of erecting a tower with elevators prevents the letting value of the remaining floor area, above a certain height, being a paying proposition. In several large commercial concerns the value of the upper floors of the tower is written off as advertisement expenditure. S. G. A.

["S. K." will find matter germane to this subject on pp. 133–4 of this issue. —ED., A.J.]

Value of Extra Work

D. W. M. writes: "*I am having trouble in settlement of an account regarding extra plaster work.*

"*During my visits to the premises, while preparing the contract documents, I found that the external walling of a sub-basement was damp for approximately a height of 4 ft. above the floor. The walls were papered and the plaster was decayed in places. In the specification I asked the builder to allow for 15 yds. provisional cutting out of defective plaster, raking out joints, making good with waterproofed Keene's cement on a backing of Portland cement and carting away rubbish.*

"*Unfortunately, after the removal of the paper a considerable amount more plaster required making good, 50 yds. in all. The builder has produced day sheets for this work, and it amounts to 6s. per yd. This seems to me to be excessive. I shall be glad to know if it is correct that I should accept day sheets, or value the work myself as included for in contract?*"

"D. W. M." should, I consider, accept the day sheets tendered to him by the builder for the work. The price is not very excessive, if at all, for there is quite a large amount of rubbish to wheel and cart away.

If the contract stated that the work was to be measured and valued at completion by the architect and there was an extra, say, in plastering to new walls, the meaning of the clause could be brought into practice by measuring at current rates; but how is "D. W. M." going to measure and value cutting away old plaster work and carting away?

The clear way to have avoided this difficulty would have been, when obtaining estimates, to ask the builder to state in his tender the price per yard he would require for this work.

W. A. D.

Rusticated Masonry

J. V. N. writes: "*Should rusticated masonry be in large or small stones to give the necessary effect of strength to a base course of a building? Often, large stones appear to me to be merely clumsy. By small, I mean about 12 ins. deep, thus introducing more joints.*"

Rustication is used to give the effect of massiveness to a wall, and should only be used when there is some reason for the eye to expect strength, as in the base of the Pitti Palace, or in the fortress-like walls of the Strozzi Palace at Florence. These bases have deep stones.

English Renaissance buildings seem to have struck a general proportion of sizes as to the depth, as the following list shows:

St. Paul's Cathedral blocks	18 in. deep.	
Horse Guards	,,	17½ in. deep.
Banqueting Hall	,,	17 in. deep.
Somerset House	,,	16 in. deep.

A number of further examples of modern rustication are given in Atkinson and Bagenal's *Theory and Elements of Architecture*. J. D.

Drainage to Garage

H. V. S. writes: "*I am erecting a garage to house ten cars and vans, and am making provision for a washing space. Regarding the drainage, will a large garage gulley, with a galvanized iron bucket, be sufficient, or will it be necessary to provide a petrol and grease interceptor? If the latter is necessary, are there any special points to observe in connection with the construction?*"

In this case a garage gulley will not be sufficient to prevent a considerable quantity of grease from entering the drains.

With the washing required for so many vehicles, even a large perforated silt bucket would soon become choked, and garage proprietors could not be relied upon to take the trouble to continually cleanse the bucket and gulley.

It has been found satisfactory to work on the following principle:

For *four* vehicles and under, provide a large garage gulley with perforated silt bucket. For *five to ten* vehicles provide a two-pit ventilated petrol-grease interceptor. For *more than ten* vehicles provide a three-pit interceptor. The pits should be built with 9-in. brick external walls with 4½-in. division walls, rendered in cement, to be about 3 ft. below inlet of drain. Each of the cast-iron dip pipes to be 2 ins. lower than the drain inlet or dip pipe preceding. Each pit to be ventilated, and the branch pipes taken to a 6-in. cast-iron ventilating pipe of soil pipe strength, taken up above eaves or parapet. Pits to have air-tight covers.

A disconnecting trap is not required to the outgo, but the drain will run to a manhole in a trapped drainage system. W. E. K.

Books for Travel

"Student" writes: "*A fellow-student and I are planning a short holiday by car. We have decided to go to Paris, and from there to branch eastward into the chateaux country. Can you suggest any books we could read, either before we go or on the trip? Not a textbook, or a guide-book, but something we could read both for information and recreation.*"

I know nothing better as a travel companion in the Loire country than *Old Touraine*, by T. A. Cook. This treats the châteaux historically and gives much architectural information. It is in two small volumes, which is a consideration for those who travel light.

The first chapters of Henry James's *Little Tour in France* deal with the Loire. For Chartres, Pater's *Gaston de Latour* gives a picture of mediæval life in the cathedral town. There are also Balzac's two novels, *La Lys dans la Vallée* and *Le Curé de Tours*, printed in French.

For more serious reading one can choose several of the excellent little *Petits Monographies des Grands Edifices de la France*, and Pierre Lesueur's invaluable book, *Le Chateau de Blois*, gives all that can be desired of the history and architecture of that building.

Vol. iii of Sir Thomas Jackson's *Renaissance of Roman Architecture* is full of good things, and if the churches of Loches, Fontevrault and Angers are to be visited, then Violet Markham's *Romanesque France* should be added to the list. R. J. K.

Cubic Cost of Building

H. D. S. writes: "(1) *What price per cubic foot should be allowed for a block of twenty flats in the London area, five stories high, including one story in roof; fireproof construction, lift, brick walls with stone dressings?*

"(2) *Is it economical to have a steel frame structure for a building of this size? If so, what would be the approximate extra cost and what would be the building time saved?*"

(1) The price per foot cube for the building inclusive of lifts, heating, etc., would be 1s. 10d. per foot cube.

(2) There is little difference in cost by designing the building with a steel frame. There would be a saving on the thickness of brickwork, etc., offset by the extra cost of steelwork.

Given efficient organization, a saving of 20 per cent. in time could be effected by the erection on the steel frame method. B. O. F.

Crack in Partition

O. E. R. writes: "*In the bathroom of my new house a partition is cracked at the angle with the external wall, to a width of about ¼ in. all the way up. The partition is of studding, lathed and plastered. I have tried stopping this with plaster of Paris, but after a time the stopping falls out. Is there any elastic solution I could press into the plaster?*"

The cracks to the bathroom partition are no doubt caused by the movement of the wood partition against the brickwork, the shrinkage of the wood cracking the plaster.

I would advise cutting a strip of calico about 6 ins. wider than the crack; wet it to shrink it, and apply with a mixture of gold size and white lead, and allow about two days to dry. If the walls are then painted, there should be no repetition of the trouble; or, cheaper than painting, distemper and varnish. For the latter, the distemper should not be too light in colour. P. I. A.

Laundry Floor

C. H. writes: "*Can you recommend a good cheap flooring for a laundry which will have a considerable amount of heavy wear? Electric trollies will be in use, and it will be so situated that light motor vans will be driven through to a yard beyond. The size of the main working space will be 40 ft. by 36 ft.*"

I should advise your correspondent to lay a granolithic floor 6 ins. thick; the lower 4 ins. in concrete composed as used generally in foundations, and the upper 2 ins. composed of cement and granite chippings (1 and 2). This should be laid in one operation in 10 ft. squares at a time. The chippings should be clean and very little dust allowed. Then, finish with the trowel and well water within an hour of laying.

Colouring could be added to the mixture, and this would relieve the cold appearance given by this type of floor. W. H. L.

THE REFORM OF BUILDING BYLAWS

THE case for reform of the building bylaws is stoutly and skilfully argued in a leading article in *The Times* for July 18 last, from which the following sentences are quoted:

During the last few months attention has repeatedly been called with increasing emphasis to the crippling effect on the building industry of the Acts and regulations by which it is at present governed. Among those who have recently expressed these opinions in our correspondence columns are the secretaries or other spokesmen of the London Employers' Association, the British Steelwork Association, the Institutions of Civil and of Structural Engineers, the Surveyors' Institution, the National Federations of Building Trades Employers and Building Trades Operatives. Most of these bodies were specifically referred to by Sir Frank Baines at the meeting of all parties convened in the House of Commons, with Sir Robert Horne in the chair, to consider the question of the alteration of the existing bylaws. The enactments by which the industry is controlled he described as involved, unco-ordinated, antiquated and hopelessly diverse and out of date; and he expressed his conviction that these various associations, together with the great building trade unions, are all in favour of their statutory revision. In equally forcible language, Sir Banister Fletcher points out today that for ten years the R.I.B.A. have been urging the necessity of revising them on a national scale and in conformity with modern building methods and requirements.

Sir Banister appeals to the London County Council to take the necessary step to deal with the matter. On the other hand, at the non-party meeting it was agreed to ask the Minister of Health to receive a deputation petitioning for the immediate relaxation of all bylaws of a restrictive character. It was also decided that an effort should be made to draft a Bill to amend the London County Council Acts; that all interested parties should consider how to place building regulations throughout the country on a better and more satisfactory footing; and that Parliament should be requested to consider the revision of the statutory obligations imposed on the industry. Each of these various expedients is in itself unexceptionable. They all, of course, have the same object in view, and between them may lead to the desired result, though it would perhaps have been preferable for the various bodies vitally concerned to agree on a concerted line of action. But in any case there is no doubt as to what they all want. Their aim, said Sir Frank Baines, is a national code of building regulations, drawn up by those qualified to speak with authority and knowledge, and administered by a central authority—the code to be fluid, with power of revision, so that advantage could be taken of all advancing practice.

SOCIETIES AND INSTITUTIONS

THE WELSH SCHOOL OF ARCHITECTURE

The following awards have been made at the Welsh School of Architecture, Technical College, Cardiff:

FIFTH EXAMINATION

For the Diploma awarded at the end of the five years' full-time course, exempting from the R.I.B.A. Final Examination with the exception of the subject, "Professional Practice":

Aitken, F. K. (*Diploma with Distinction.*)
Bishop, J. W. ,, ,, ,,
Price, Miss O. E. ,, ,, ,,
Richards, L. F. ,, ,, ,,
Thatcher, C. ,, ,, ,,
Honeywell, F. (*Diploma.*)
Llewellyn, G. ,,
Richards, I. F. B. ,,

FOURTH EXAMINATION

Rosser, C. Ward, J. P.

THIRD EXAMINATION

For the certificate awarded at the end of three years' full-time course, exempting from the R.I.B.A. Intermediate Examination:

Ayres, N. D. Davies, W. J.
Darch, J. T. Richards, G.

SECOND EXAMINATION

Allen, P. Roberts, S. G.
Lewis, H. J.

FIRST EXAMINATION

Francis, C. H. Roberts, D. W.
Hill, T. Thomas, A. S.
Hurley, L. F. Thomas, I. G.

MODERN ARCHITECTURE

The widespread interest in the B.B.C. talks on Modern Architecture, broadcast by Mr. Maurice E. Webb and Mr. Howard Robertson a short time ago, was manifested by the large attendance in the R.I.B.A. Galleries on Friday last, when they delivered lectures on the same subjects. The Meeting was arranged by the London Society, and presided over by Mr. Carmichael Thomas.

By the aid of lantern illustrations, Mr. Webb described the influence of the

skyscraper on American architecture, and pointed out how radically different the buildings of London and of New York really were. He imagined skyscrapers of the future soaring skywards nearly half a mile!

Mr. Robertson showed examples of modern architecture throughout Europe. His slides of Stockholm Exhibition were particularly interesting, and he explained how the purpose of the Exhibition was to express the function of modern design. Flags supplied the only real ornamentation on the buildings.

C.P.R.E. NATIONAL CONFERENCE, 1930

The Third National Conference for the Preservation of Rural England, arranged by the C.P.R.E., is to be held at Welwyn Garden City from October 9 to 11, 1930.

The following will provide the subjects for discussion: (1) The preservation of commons, parks, open spaces and nature reserves, and the provision of playing-fields; (2) Town and regional planning in their relation to the objects of the C.P.R.E.; (3) Education and citizenship in their relation to the safeguarding of the countryside, with special reference to schools, rambling, scouting, guiding, etc., and the use and enjoyment of the countryside; (4) Flora and fauna, including the preservation of trees, wild flowers, roadside plants and the protection of birds.

Full particulars of the conference are obtainable from the Secretary, C.P.R.E., 17 Great Marlborough Street, Regent Street, London, W.1.

THE INSTITUTION OF HEATING AND VENTILATING ENGINEERS

Examinations for admission as graduates and associate membership of the above Institution are held at suitable centres in January, May and September each year.

Intending candidates should apply to H. B. Watt, Secretary, 12 Russell Square, London, W.C.1.

ANNOUNCEMENTS

Viscount Glenapp and Mr. Roger Wright have been appointed directors of the Westminster Bank, Limited.

Mr. Stanley Hunt, A.R.I.B.A., Architect and Surveyor, has removed his offices from 70 Finsbury Pavement, E.C.2, to 101 Finsbury Pavement, E.C.2. Telephone No.: Metropolitan 5364.

Included in the Civil List pensions, issued last week, is the name of Mrs. Evelyn M. Bankart. She receives a pension of £80 for the services rendered by her husband, the late Mr. George Percy Bankart, to art in the development of decorative plasterwork and lead-work.

THE ARCHITECTS' DIARY

WEDNESDAY, JULY 23

R.I.B.A., 9 Conduit Street, W.1. Exhibition of models, masonry specimens, drawings and photographs of St. Paul's Cathedral. Daily, 10 a.m. to 8 p.m. (Saturdays, 5 p.m.).
Tite Prize Final Competition. **10 a.m.**

ARCHITECTURAL ASSOCIATION, 36 Bedford Square, W.C.1. Annual Exhibition of Students' Work, open daily from 10 a.m. to 6 p.m., until August 1. **10 a.m.**

ROYAL ACADEMY, Burlington House, S.W. Summer Exhibition open to the public until August. 9 a.m. till 7 p.m. **9 a.m.**

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the New Whitelands Training College, Putney Hill, S.W., designed by Sir Giles Gilbert Scott, who, with Lady Scott, will entertain members to tea after the visit. **3 p.m.**

BOARD OF EDUCATION REFRESHER COURSE FOR TEACHERS IN ART SCHOOLS. At the Victoria and Albert Museum, South Kensington, S.W.7. Discussion on "Is Painting a Craft?" to be opened by Percival Tudor-Hart. Capt. Claude Flight, R.B.A., will reply. Chairman: Charles Marriott.

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. 10 a.m.

KINGSTON-UPON-THAMES PUBLIC BATHS COMPETITION. Exhibition of designs at the Tiffin Boys' School (old building). 2 p.m. to 8 p.m. **2 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Exhibition of Egyptian and Palestinian Antiquities. Until July 26. 10 a.m. to 5 p.m. (July 15 and 25, 6.30 to 8 p.m.) **10 a.m.**

THURSDAY, JULY 24

R.I.B.A., 9 Conduit Street, W.1. Victory Scholarship Final Competition.

BOARD OF EDUCATION SUMMER COURSE FOR TEACHERS OF BUILDING SUBJECTS. At the Portland Hall, Little Titchfield Street, Great Portland Street, W.1. "The Physics of Soils and Porous Materials." By B. H. Wilsdon, M.A., B.SC. Chairman: H. T. Tizard, C.B., F.R.S. **2.30 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Eighteenth-Century Furniture." By L. O. Faraker. 12 noon. "Italian Furniture." By Miss M. Chamot. **7 p.m.**

BRITISH MUSEUM, W.C.1. "Origins of Architecture—II. Roman, etc." By Cecil Hallett, B.A., F.S.A. **12 noon.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Light and Colour." By S. H. Groom, B.A. **12 noon.**

FRIDAY, JULY 25

R.I.B.A., 9 Conduit Street, W.1. Visit to U.S.A. Arrival of S.S. "Ascania" at Plymouth.

BOARD OF EDUCATION SUMMER COURSE FOR TEACHERS OF BUILDING SUBJECTS. At the Portland Hall, Little Titchfield Street, Great Portland Street, W.1. "Earth Pressures." By Professor C. F. Jenkins, C.B.E., LL.D., M.INST.C.E. Chairman: H. T. Tizard, C.B., F.R.S. **2.30 p.m.**

SATURDAY, JULY 26

Sunrise, 5.13 a.m. Sunset, 8.59 p.m.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Visits to Leeds Castle, Chilham or Bodiam, etc., organized by the Canterbury and Tunbridge Wells Chapters. Particulars of the visits are obtainable from the Hon. Secretaries of the Chapters.

MONDAY, JULY 28

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Decoration." By Miss M. Chamot. **3 p.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Electricity." By S. H. Groom, B.A. (Lantern Illustrations.) **3 p.m.**

TUESDAY, JULY 29

TOWER OF LONDON, E.C.3. "The Tower in Tudor Times." By Allen S. Walker. **11 a.m.**

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

WEDNESDAY, JULY 30

BOARD OF EDUCATION SUMMER COURSE FOR TEACHERS OF BUILDING SUBJECTS. At the Portland Hall, Little Titchfield Street, Great Portland Street, W.1. "A Builder Looks at America." By L. A. Gerrard, F.I.O.B. Chairman: E. J. Strange, I.P., F.I.O.B. **2.30 p.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "The Weather." By S. H. Groom, B.A. (Illustrated by Lantern Slides.) **3 p.m.**

THURSDAY, JULY 31

BOARD OF EDUCATION REFRESHER COURSE FOR TEACHERS IN ART SCHOOLS. At the Victoria and Albert Museum, South Kensington, S.W.7. "Are Art Schools Assisting Industry?" By Henry G. Dowling, F.R.S.A., F.I.B.D., of John Line and Sons. Chairman: Alfred Shuttleworth, A.R.C.A. (Secretary of the National Society of Art Masters).

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Alfred Stevens." 3 p.m. "Modern Sculpture." 7 p.m. Both lectures by Miss M. Chamot. **3 p.m.**

LUTON TOWN HALL, DUDLEY SCHOOL and SOUTHPORT MARKET HALL COMPETITIONS. Latest date for submission of designs.

SATURDAY, AUGUST 2

Sunrise, 5.24 a.m. Sunset, 8.48 p.m.

MONDAY, AUGUST 4 (BANK HOLIDAY)

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Masterpieces." 12 noon. "Italian Masterpieces." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

SATURDAY, AUGUST 9

Sunrise, 5.35 a.m. Sunset, 8.35 p.m.

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By L. O. Faraker. **12 noon.**

TUESDAY, AUGUST 12

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Seventeenth-Century Furniture." 12 noon. "English Eighteenth-Century Furniture." 3 p.m. Both lectures by L. O. Faraker. "Spanish Art." By Miss M. Chamot. 3 p.m. **12 noon.**

THURSDAY, AUGUST 14

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Renaissance Furniture." By L. O. Faraker. **3 p.m.**

SATURDAY, AUGUST 16

Sunrise, 5.46 a.m. Sunset, 8.22 p.m.

TUESDAY, AUGUST 19

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

THURSDAY, AUGUST 21

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By Miss M. Chamot. **3 p.m.**

SATURDAY, AUGUST 23

Sunrise, 5.56 a.m. Sunset, 8.8 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Ironwork." 12 noon. "Ecclesiastical Metalwork." 3 p.m. Both lectures by L. O. Faraker. **12 noon.**

MONDAY, AUGUST 25

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass." By T. F. Wilson, F.R.S.A.I. **3 p.m.**

SATURDAY, AUGUST 30

Sunrise, 6.8 a.m. Sunset, 7.53 p.m.

MONDAY, SEPTEMBER 1

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. September 1 to 6.

TUESDAY, SEPTEMBER 2

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "The Composition, Mixing, Methods of Application of Concrete and Reinforced Concrete as used in the Yards and the Control of Same." By T. R. Grigson, M.INST.C.E. "Some Notes on the Composition, Mixing and Application of Concrete in Engineering Works." By C. J. Jackaman, A.M.INST.C.E.

WEDNESDAY, SEPTEMBER 3

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Pieces in Concrete Piles." By M. J. C. McCarthy, A.M.INST.C.E., A.M.MECH.E. "Stresses in Dams." By S. D. Carothers. "A Study of Plain and Reinforced Concrete Retaining Walls." By Ewart S. Andrews, B.SC., M.INST.C.E. "Reinforced Concrete in Great Britain." By A. Kirkwood Dodds, M.C., M.SOC.C.E. (FRANCE). "Reinforced Concrete in Engineering: Representative Examples of British Practice." By M. Gerard, M.SOC.C.E. (FRANCE).

LAW REPORTS

ARCHITECT'S FEES : APPEAL

Shipwright v. *Lidiard. Court of Appeal. Before Lords Justices Scrutton, Greer and Slesser*

THIS was an appeal by the defendant, Sir Herbert Lidiard, of Great James Street, London, from the judgment of a King's Bench Divisional Court consisting of Justices Talbot and Finlay, allowing an appeal by the plaintiff, Mr. Wm. Geo. Shipwright, an architect, of Abbey House, Victoria Street, London, and of Broadstairs, from a judgment of Mr. G. A. Scott, an Official Referee.

[A report of this action was published in THE ARCHITECTS' JOURNAL for May 7, 1930, page 724.]

Mr. Miller, K.C., who argued the case for Sir H. Lidiard, contended that the judgment of the Official Referee should be restored, that there had been clear evidence of negligence by the architect, and that in the circumstances Sir Herbert Lidiard was justified in rescinding the contract and abandoning the scheme.

Mr. James Dickinson, K.C., for Mr. Shipwright, contended that the judgment of the Divisional Court was right, and that Mr. Shipwright was not liable for what had occurred. Counsel said that although the walls of the twelve houses had cracked through the use of aerocrete, that did not justify Sir Herbert Lidiard abandoning the whole scheme and rescinding Mr. Shipwright's contract. It had not been established that aerocrete, properly manufactured and mature, was not a suitable material to be used. The builder at the trial had offered to put the matter right for £75.

At the conclusion of the arguments the Court reserved its judgment.

A DISPUTED CONTRACT

Marks v. *Board and Others. King's Bench Division. Before Mr. Justice Rowlatt*

This was an action by Mr. David Marks, of Belgrave Road, N.W., against Mr. V. Board, of Sorre Road, Hampstead, and Messrs. L. Pearlman & Co., estate agents, of West End Lane, Hampstead, under a contract for the alleged sale of a house to the plaintiff.

Plaintiff's case was that he agreed with the defendant's agents, Messrs. Pearlman & Co., to purchase a house in the Sorre Road for £950, and under the document he signed he paid deposits amounting to £95. The vendor had repudiated the contract, and plaintiff now sued the defendant Board, and in the alternative his agents, for alleged breach of warranty of authority, alleging that he could not purchase a similar house in the road on such good terms.

Defendant Board by his defence denied that there was any concluded contract, or that the plaintiff had suffered any damage. The other defendants said they had not committed any breach of their authority.

His lordship, after hearing the evidence, dismissed the claim with costs, declining to allow the second defendants their costs.

He said the case was an unfortunate one. The plaintiff's claim failed, as there was no contract which was enforceable or which could be relied upon. The document was called a memorandum of agreement. It was a formal sort of agreement, with a stamp, and recited that part of an intended deposit had been paid, and that another part would be paid and in fact had been paid. It contained the words "subject to surveyor's report," and was put forward by the second defendants in an endeavour to clinch the matter. It was perfectly well understood that when a person said he would buy, and agreed to everything else, subject to surveyor's report, it meant that he reserved to himself the absolute and undisputed right to say whether or not he liked the surveyor's report. In other words, there was no contract, because the buyer was not yet bound; and if the buyer was not bound, neither was the seller. The document was made to look like an agreement, and to take a deposit when there was no contract was a confusion which misled some inexperienced people. He accordingly dismissed the action.

DIGGING DITCHES : ALLEGED TRESPASS

Perry v. *Penrice. Chancery Division. Before Mr. Justice Luxmoore*

In this case Mrs. H. Perry sought an injunction restraining the defendant, Mr. G. W. Penrice, from digging trenches in plaintiff's land adjoining property known as The Croft, Ash Green, Surrey.

The Croft was the property of the defendant, having been conveyed to him by the plaintiff. The defendant, in his reply to the claim, set up a title to the land in question. He also said there was an agreement under which he submitted that he was entitled to do the acts complained of.

His lordship, after hearing the evidence of the parties, said it was a matter of regret that neighbours should have thought it necessary to bring this action. He was of the opinion that the boundaries were such that the ditches that had been dug by the defendant were outside the property as conveyed to the defendant, and therefore there was no justification for what he had done. He also came to the conclusion that there was no such agreement as the defendant alleged. He granted plaintiff the declaration she sought, that the acts complained of were acts of trespass, and awarded her £5 nominal damages with costs.

PARTITIONING OF PREMISES

L. and W. Whitehead, Ltd., v. *Hansley. King's Bench Divisional Court. Before Mr. Justice Branson*

Plaintiffs, Messrs. L. and W. Whitehead, contractors, of Clapham Road, sued Mr. E. J. Hansley, an estate agent, of 6 Hanover Square, W., to recover the sum of £1,510 for work done in respect of the partitioning of premises in Regent Street.

Defendant denied liability. There was a third party to the action, Mrs. A. M. Barker, a widow.

It appeared that the defendant was the surviving partner in a firm of auctioneers and estate agents, and that the partner who had dealt with the matter, a Mr. Brown, had since died.

The issue before the Court was whether the defendant was personally liable for the work ordered or whether the orders were merely given to the defendants as agents for the third party.

His lordship held that the plaintiffs were entitled to judgment, with costs, but that the defendant should be indemnified by the third party, who admitted that she had instructed Mr. Hansley's firm to do certain work in regard to the partitioning of the premises.

FALSE SALE OF PAINT

London Chamber of Commerce v. *Hamilton Trading Co., Ltd. Merchandise Marks Act Prosecution. Lambeth Police Court. Before Mr. H. McKenna*

In this case, the Hamilton Trading Co., Ltd., of 23 Queen's Road, Peckham, were charged, in a prosecution under the Merchandise Marks Act, with having sold paint with the false trade description of white lead paint, and were fined £15 and £15 15s. costs. The Hamilton Trading Co., Ltd., pleaded guilty. The prosecution was conducted by Mr. C. W. Measor, barrister, instructed by Messrs. White and Leonard.

Mr. Measor stated that there were advertisements in the window of the Hamilton Trading Co.'s shop at 23 Queen's Road, Peckham, of "genuine stack white lead paint," and that there had been two purchases on January 27 last, one upon an oral order for "genuine stack white lead paint," referring to the advertisement, and another upon a written order for "genuine stack white lead paint." The analyses showed that the white lead contained in the tins was less than 7 per cent. of the pigment, over 79 per cent. of the pigment being barium sulphate and over 10 per cent. being zinc sulphide.

TRADE NOTES

Wrought-iron fencing and gates are the subjects of a new catalogue, just issued by Messrs. Croggon & Co., Ltd., of London, Liverpool and Glasgow. Fencing for all purposes is manufactured and supplied by the firm, who are also prepared to make wrought-iron railings and gates in their workshops exactly to architects' designs and specifications. Illustrated in the catalogue are ornamental entrance gates suitable for public or private parks and with attachments for either brick, stone or cast-metal pillars, and with or without balustrading and side gates. Many designs are also shown for wrought wicket gates with cast-iron pillars and fitted with lock or slip bolt for padlock. The firm's specialities illustrated comprise ornamental ironwork for every architectural, municipal and industrial use, and include the well-known "Ceeco" fencing and gates.

Bank News

The Midland Bank has issued a revised edition of a booklet entitled *The Service of the Midland Bank*. Copies are obtainable upon application at the Head Office, Poultry, London, E.C.2, or at any branch. The work contains illustrations of some of the facilities available to the public, a map showing by counties the distribution of the 2,070 branches in England and Wales, and diagrams indicating the growth of the institution. There is also a photographic reproduction of the exterior of the new head office building. In addition to a brief history of the bank, chapters are devoted to several of the principal services rendered by the largest joint-stock undertaking of its kind in the Empire, including a description of the safe deposit service which was recently brought into operation at the head office.

*

The directors of Westminster Bank Ltd. have declared an interim dividend of 10 per cent. for the half-year ended June 30 on the £4 shares, and the maximum dividend of 6¼ per cent. on the £1 shares for the same period. The dividends, 2s. per share and 1s. 3d. per share respectively (both less income tax), will be payable on August 1.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

20121. Aluminiumerz Bergbau und Industrie Akt.-Ges. Material for building construction, etc. July 2.

19954. Cardinael, P. Building-block. July 1.

20310. Montagnon, D. J. Roofing or building materials. July 4.

19992. Symons, A. H. Shores for building construction. July 1.

SPECIFICATION PUBLISHED

331345. Glover, C. W., and Heat and Sound Insulation, Ltd. Method of building construction.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

Hampstead Garden Suburb Institute (pages 115–119). General contractor, Albert Monk. Sub-contractors: Ragusa Asphalte Paving Co., Ltd., asphalt; J. H. Sankey and Son, Ltd., "Fosalsil" concrete blocks; Indented Bar and Concrete Engineering Co., Ltd., reinforced concrete; S. E. Collier, Ltd., bricks; Empire Stone Co., Ltd., artificial stone; Archibald D. Dawnay and Sons, Ltd., structural steel; Stevens and Adam, Ltd., oak flooring; Colley, Meikle & Co., Ltd., central heating; G. A. Weston, electric wiring; T. A. Harris, Ltd., sanitary fittings; Francis Norton and Son, Valtor patent spring flooring to gymnasium; Carter and Aynsley, Ltd., door furniture; Gillett and Johnstone, clock in clock tower.

House at Abbots Langley, Herts (page 124). General contractors, Payne Bros. Sub-contractors: Tyler and Freeman, electrical work; Alfred Goslett, sanitary fittings; W. T. Lamb and Sons, roof tiling; Van Straaten (Martin) & Co., wall tiling; John Elbo, cork flooring; "Atlas White" Cement Co., exterior finishing work.

MODERN ADVERTISING

Although the title of Greenly's exhibition, held at the Royal Water Colour Society's Gallery, London, S.W.1, was Modern Advertising, there was an instructive outline of the development of advertising from B.C. to 2030 and a whimsical glimpse into the possible future. The earliest exhibits were of Ancient Rome, and included an example of the type of advertisements found on Pompeian tablets, which, it was stated in the catalogue, buried in lava by the eruption of Vesuvius in A.D. 79, have been preserved for nearly two thousand years. These inscriptions are advertisements for gladiators and poets, containing remarks and opinions of the Pompeians, with reference to their fancies and favourites in the circuses and other public exhibitions. Among the Roman tradesmen's signs were three, to advertise respectively a bakery, a dairy and a wine shop, found in the ruins of Pompeii, and one, of a shoemaker's, which came from Herculaneum. The first printed advertisement in English we found appeared in A.D. 1477. It was printed by William Caxton, and announced the publication of his *Salisburi pye*. A gem of the nineteenth century was one of the famous Sequah's direct-to-the-public advertisements. Coming from America in the early nineties, he opened at Portsmouth with a gilded carriage, cowboy band and a troupe of Redskins, and, it was said, performed extraordinary cures on persons afflicted with rheumatism. The modern examples of advertising by Greenly's numbered seventy-six, every one of which attracted and held the attention of the visitor as much as it must have held that of the reader of the newspaper in which it appeared.

COMPETITIONS OPEN

July 31.—The Luton Town Council invites architects to submit designs for the proposed town hall, which is to be built on the site of the old town hall, at an approximate cost of £250,000. Assessor: Sir Brumwell Thomas, F.R.I.B.A. Premiums: £500, £300, £200 and £100. Particulars obtainable from W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s. Latest date for submission of designs: July 31.

July 31.—The Southport Borough Council invites local architects to submit designs for a new Market Hall. Assessor: Percy Worthington, F.R.I.B.A. Premiums: £100, £50, £35, and £20. The hall is to contain fifty-six stalls and a manager's office. The site is 191 ft. by 95 ft. The estimated cost is £13,500. Conditions obtainable from the Town Clerk, Municipal Buildings, Southport. Latest date for submission of designs: July 31.

August 30.—The Carlisle Corporation invites British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. The site was previously occupied by the Prison. The total length of the frontage is approximately 358 ft. Assessor: Francis Jones, F.R.I.B.A. Premiums: £300, £200, and £100. Particulars of the competition, etc., may be obtained from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

September 1.—The Bangor (Co. Down) Borough Council invites architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor: Professor Patrick Abercrombie, F.R.I.B.A. Premiums: £150 and £50 for first and second places, respectively. Copies of the conditions and plans will be forwarded on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs: September 1.

September 30.—The Isle of Man Education Authority invites architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	•1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	•1 8½	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B'	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	•1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	•1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	•1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_1	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	•1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	•1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	•1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_2	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

• In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

	£	s.	d.
Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

	£	s.	d.
Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

	£	s.	d.		£	s.	d.
Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.
RETURN, fill, and ram, ordinary earth, per yd. £0 1 6
SPREAD and level, including wheeling, per yd. 0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6
TRIMMING earth to slopes, per yd. sup. 0 0 6
HACKING up old grano. or similar paving, per yd. sup. . . . 0 1 3
PLANKING to excavations, per ft. sup. 0 0 5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.
IF left in, add to above prices, per ft. cube 0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1
DO. 6 in. thick, per yd. sup. . . 0 2 10
PUDDLING, per yd. cube 1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6
DO. 6-2-1, per yd. cube . . . 1 12 6
DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.
LIAS-LIME CONCRETE, per yd. cube . £1 14 0
BREEZE CONCRETE, per yd. cube . 1 7 0
DO. in lintels, etc., per ft. cube . 0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9
FINE concrete benching to bottom of manholes, per ft. cube . . . 0 3 0
FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

	£	s.	d.
Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0

Portland cement and sand, see "Excavator" above.

Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

	£	s.	d.
London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

	£	s.	d.
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in. per roll*	0	4	9
DO. *14 in. per roll*	0	7	6
DO. *18 in. per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

	£	s.	d.
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra.	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. per hour; SCAFFOLDER, 1s. 4½d. *per hour.*

	£	s.	d.
Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super.	0	11	0
York templates sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

Cement and sand, see "Excavator," etc., above.

	£	s.	d.
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

	£	s.	d.
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

	Med. Grey	Med. Green
Portmadoc Ladies		£14 0 0
Countess		23 0 0
Duchess		32 10 0
Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

	£	s.	d.
Green Randoms, per ton		8	3 9
Grey-green do., per ton		7	3 9
Green peggies, 12 in. to 8 in. long, per ton		5	13 9

In 4-ton truck loads, delivered Nine Elms station.

	£	s.	d.
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2

Cement and sand, see "Excavator," etc., above.

	£	s.	d.
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

	£	s.	d.
Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0

	£	s.	d.
Green randoms	6	7	0
Grey-green do.	5	9	0
Green peggies 12 in. to 8 in. long	4	13	6
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18s. 0d. per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

	£	s.	d.
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0

Memel or Equal. Slightly less than foregoing.

	£	s.	d.
Flooring, P.E., 1 in., per sq.	£1	4	6
DO. *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	4
DO. *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube . 0 4 6
DO. framed in floors, roofs, etc., per ft. cube 0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube . 0 8 6
PITCH PINE, add 33⅓ per cent.
FIXING only boarding in floors, roofs, etc., per sq. 0 13 6
SARKING FELT laid, 1-ply, per yd. . 0 1 6
DO., 3-ply, per yd. 0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq. . 2 0 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run . 0 0 4½
DO. 9 in. wide and over, per ft. sup. . 0 1 2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.* 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1½ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ¼ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet. 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes fixed, per ft. sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

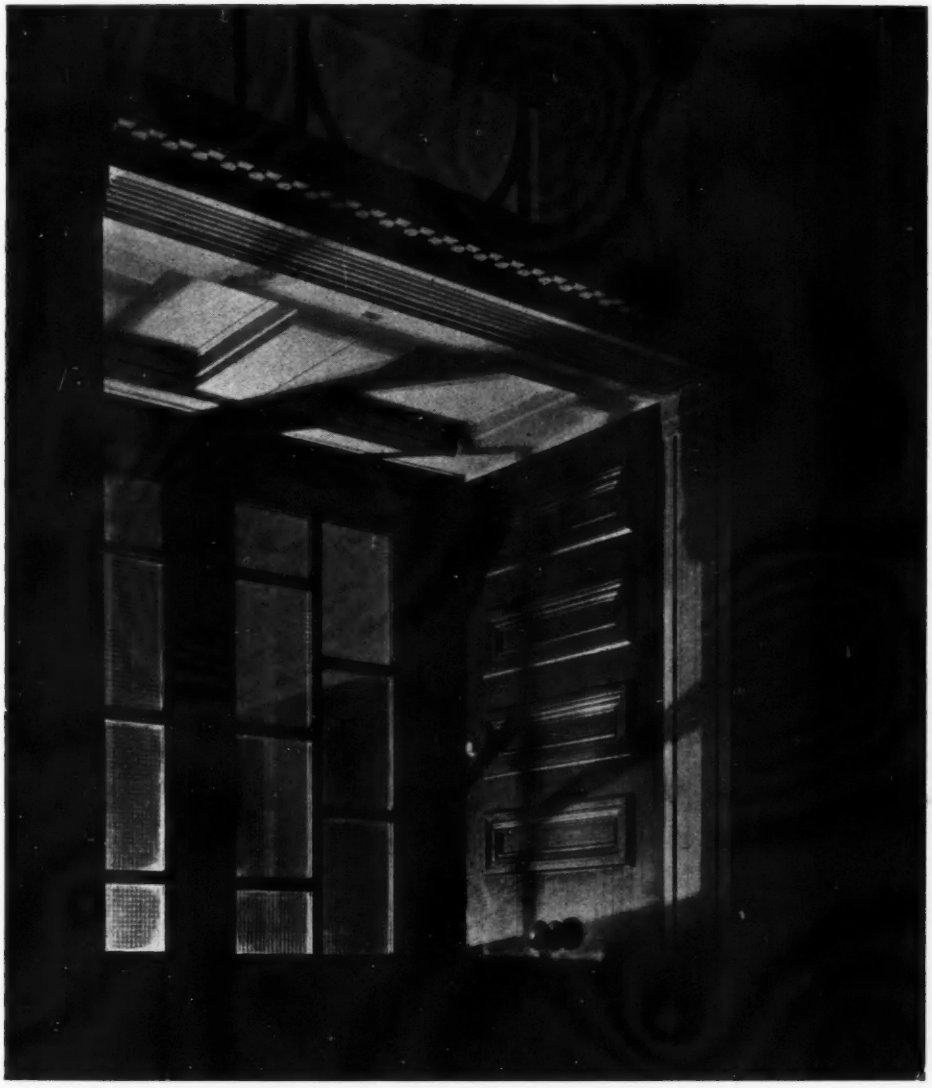
SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, $\frac{5}{32}$ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, $\frac{5}{32}$ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	4	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



ENTRANCE LOBBY AT THE ORATORY CENTRAL SCHOOL, CHELSEA, S.W.
DESIGNED BY CHRISTIAN BARMAN

THE inner doors forming this lobby are of wood, painted a bright Venetian red, with the upper and larger panels glazed in an unusual rectangular manner. The lower solid panels are given a bolection moulding.

The treatment of the inner corners of the lobby—which are formed of two interlocking reeded columns—should be noticed, the doors themselves being hung to the inner pair of these columns and the side framing of the lobby being housed to the outer pair. The panelled soffite of the lobby itself is finished in an oyster-white tone, while the door furniture is chromium-plated. These doors are glazed with fire-resisting glazing, wired in small squares, which, while satisfying the requirements of the fire inspectors, is at the same time in keeping with the design as a whole.

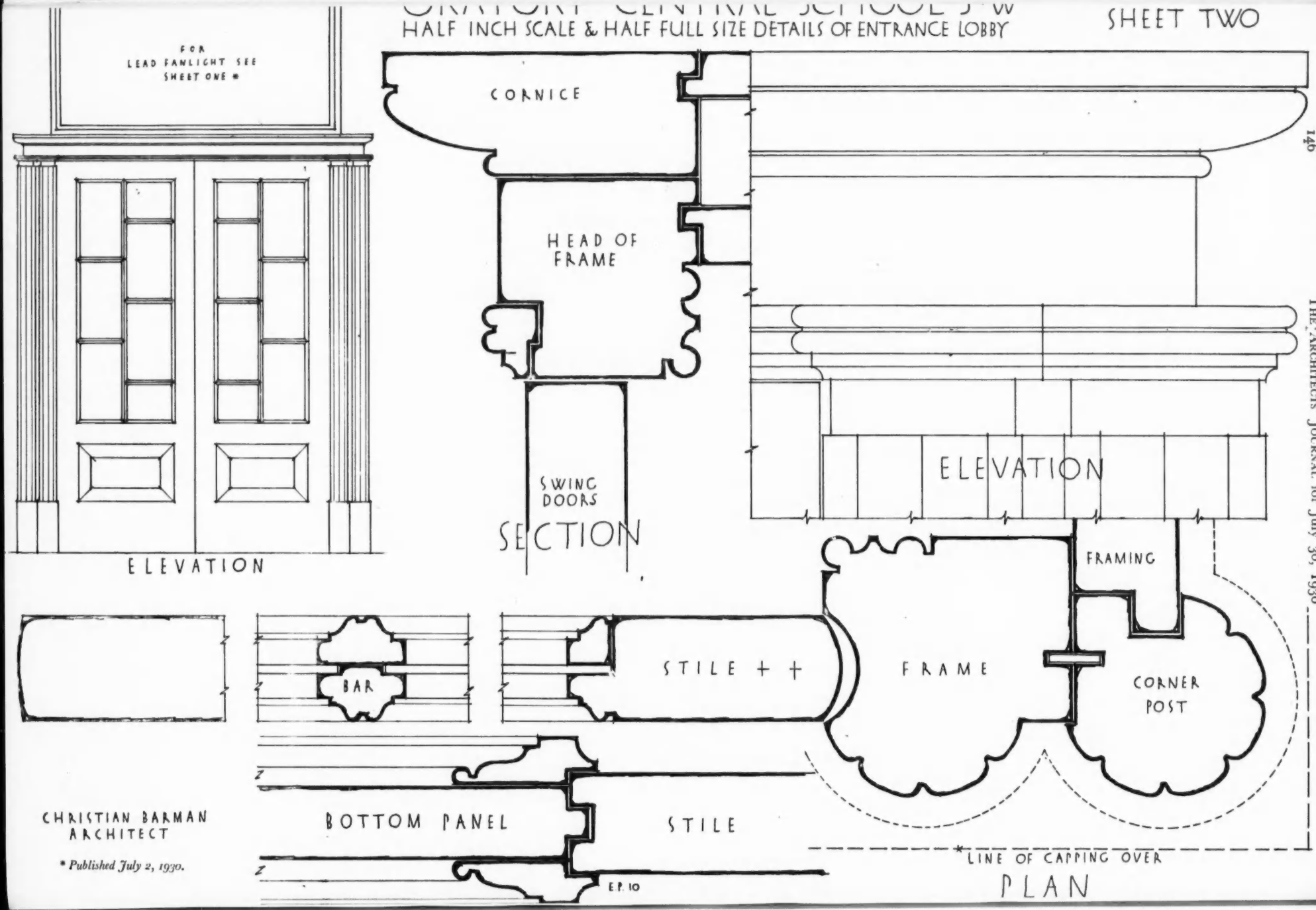
The working drawings overleaf show these doors to ½-in. scale, with details to half full-size. (The outer doors were the subject of the Scale Detail in the issue dated July 2, 1930.)

The drawing may be read with ordinary architect's scales—½ in.; and 6 in.=1 ft.

SHEET TWO

[illegible] CENTRAL SCHOOL [illegible]

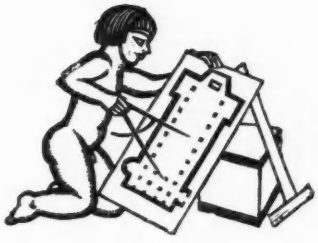
HALF INCH SCALE & HALF FULL SIZE DETAILS OF ENTRANCE LOBBY



CHRISTIAN BARMAN
ARCHITECT

* *Published July 2, 1930.*

THE ARCHITECTS' JOURNAL



WEDNESDAY, JULY 30, 1930

AN EXHIBITION WITH A DIFFERENCE

"The moment has arrived when the architects may collaborate with all *the artists in an exhibition that will comprehend the whole of house-making."*

IT is hard to know in this country at what stage of artistic development we have at any moment arrived. A clamorous Press, a vocal public, an enormous pseudo-uplift movement—all conspire to mask the genuinely inspired creations of a smaller band of artists, so that leadership by those best qualified to lead is impossible so long as there is any attempt to influence all but an educated minority.

It must be obvious to all who have turned the pages of *The Architectural Review* that there *is* a growing minority whose tastes lead them to prefer the work of responsible artists to the dreary imitations of past styles purveyed by the old type of interior decorator, or even to the completely finished product of an architect's office. For this minority the artist may express himself in design of all kinds. Not only houses, not only pictures and sculpture, but fabrics, carpets, furniture, pottery, glass, and everything that the wit of man can make more satisfying to the eye—all these are the artist's field.

Now, for years past this has meant that these things were designed by Continental artists; for, being insular, we look outside for our luxuries. Today we can count upon men whose inspiration may be whatever this age makes it, but in some way also is a sort of English vision, just as Paul Nash's inspiration may be the product of much that comes from France, but is English all the same. And we feel that, as our artists begin to express themselves and find architects to work with and clients to work for, the products of their labour should be brought together from time to time so that not only they, but the members of the educated minority, may see them and sense the direction in which they move.

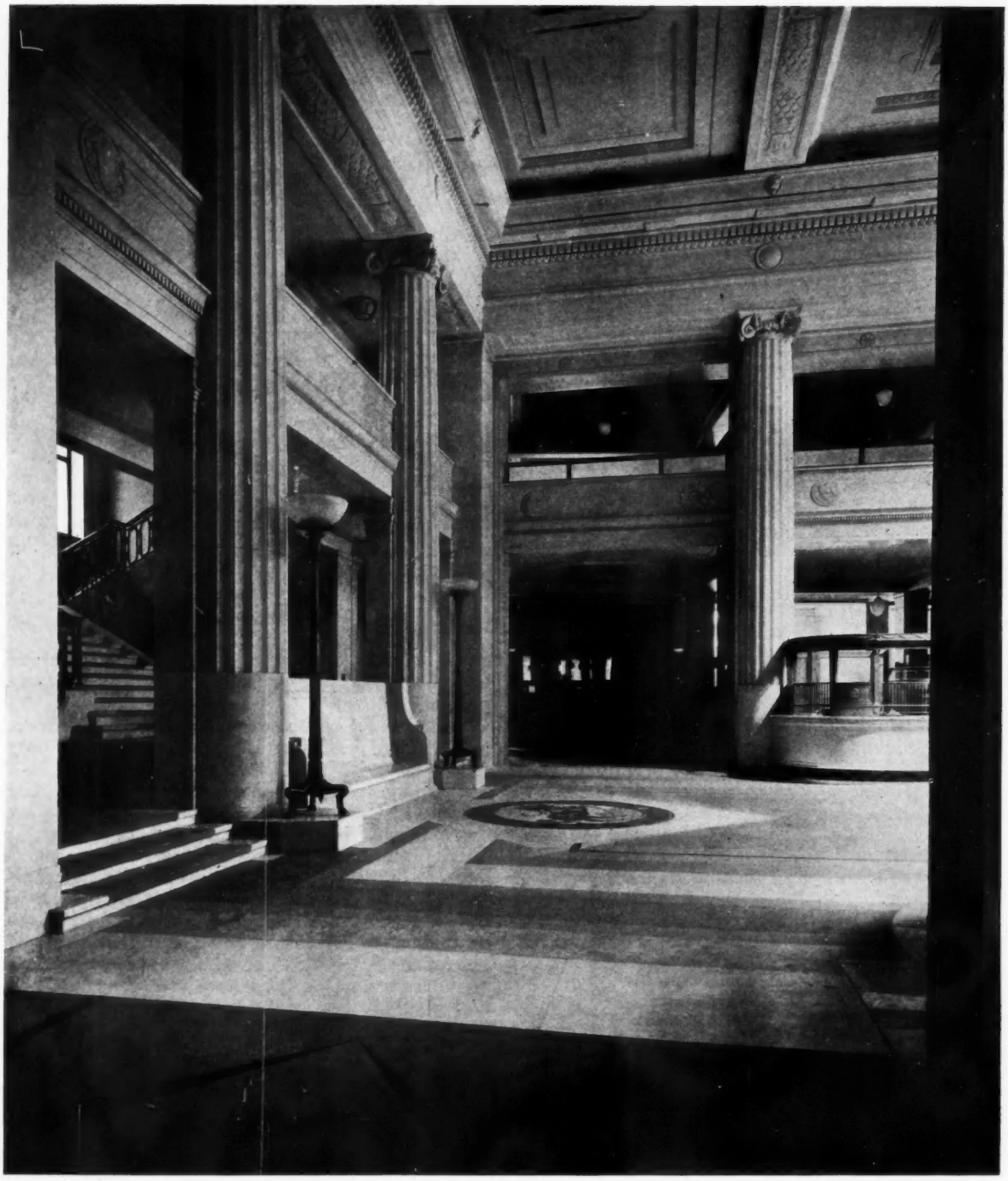
We stress the minority movement because it seems to us that some things spoil by touching, and that if there is to be any real direction given to this work it must be given by the encouragement of architects and by a really appreciative public of interested people.

Taste cannot be broadcast. It is an acquirement: nearly a privilege, just as the appreciation of architecture is.

Architects have often baited the public with photographs and little models. In vain. The public, even the minority public, is interested in homes; in interiors; in things. We therefore suggest that the moment has arrived when the architects may collaborate with *all* the artists in an exhibition that will comprehend the whole of house-making. In this exhibition, which might be annual and under the ægis of the R.I.B.A., there would be shown the work of those men whose fabrics we use or would like to use; the very best of the furniture, pottery, glass, of sculpture, ironwork, lighting—the whole gamut of designing and making.

But we stipulate that it shall be of the very best of our time: modern, not in the sense of it being necessarily ununderstandable or uncomfortable, or like this or that thing done in Germany or Sweden, but something representative most particularly of us and of our time. And it shall not be retrospective; nor arty; nor crafty.

To such an exhibition we feel that a public would be drawn; coming to see sculpture and pictures, but staying to see the whole show, including the architecture that houses the lesser things. It would be an education for them, and for us, as architects, superior to any other that might be devised; and we feel, too, that as this exhibition added year to year, producing annually a fine illustrated catalogue of its exhibits, the sense of direction would be defined and strengthened, would find response outside, and gain for itself a new prestige.



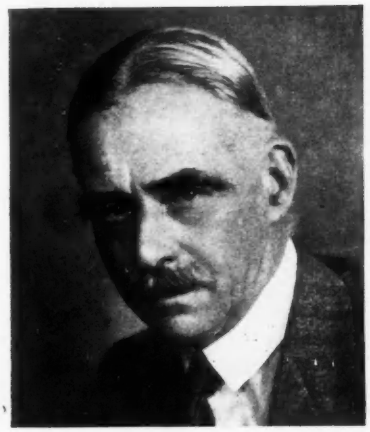
THE MARBLE BANKING HALL AT LLOYDS

Lloyds Bank is about to move into its new headquarters. The building has façades to Cornhill and Lombard Street, E.C., and has been described by Professor C. H. Reilly as the most monumental of our English banks, not excepting the Bank of England itself.

The banking hall is built entirely of marble. Twelve huge columns rise to the ceiling, where light enters through glass concealed in deep coffers. At the base of the columns the marble counter forms three sides of a rectangle. The seat seen at the foot of the two-way marble staircase is hewn complete out of a solid block of marble. Incorporated in the design of the rubber floor is a mosaic medallion by Gilbert Bayes, showing the "Black Horse," the sign of Lloyds Bank.

The architects are Sir John Burnet and Partners, and Campbell Jones, Sons and Smithers.

NEWS & TOPICS



Percy Scott Worthington.

THE R.I.B.A. NEW BUILDING JURY OF FIVE ASSESSORS

Robert Atkinson
Charles Holden
H. V. Lanchester
Sir G. Gilbert Scott
Percy S. Worthington



Sir Giles Gilbert Scott.

THE R.I.B.A. JURY

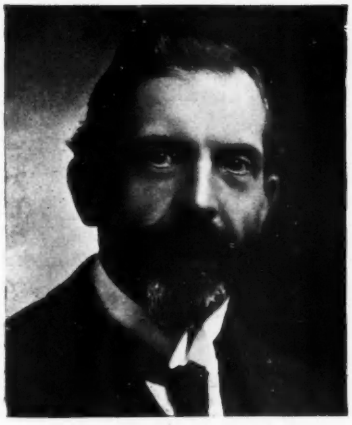
THE names of the jury appointed to assess the forthcoming competition in which architects will be invited to submit designs for a new building to house the R.I.B.A. have at last been announced and will meet with the general approval of the profession. The Competition Committee has performed its delicate task with discretion and has succeeded in holding the scales evenly between the various interests and schools of thought which need to be represented on the jury. The constitution of this body does not differ in essentials from that recommended in the pages of this JOURNAL, although the suggestion that one of the assessors should be a layman has not found favour with the Committee.

*

All the five names announced occurred frequently in the list of jurors submitted by our readers who replied to the questionnaire which we issued to them a few weeks ago. Sir Giles Gilbert Scott is, of course, a natural choice. Although he has won only one competition, he gained more prestige thereby than do most architects who have been awarded the prize on many occasions. Thus he is fully entitled to be described as a " competition architect." Moreover, the inclusion of his name in the list of jurors will please those who like to be assured that at least one practitioner of the Gothic style will be represented. Mr. Percy Worthington has an obvious claim to be included, not only because his work is so scholarly, but because he is qualified to speak for the provincial architect. Mr. H. V. Lanchester has been associated with so many competitions, either as prize-winner or as assessor, that his great experience will be invaluable. Mr. Charles Holden is distinguished for a modern outlook, and his presence on the jury will be especially welcome to those competitors who wish to make stylistic experiments. Mr. Robert Atkinson, too, is not ashamed to espouse the cause of the modernists, as his award in the Stratford Competition proved. This is indeed an excellent jury, one to inspire complete confidence in the competitors, who, even at this moment, must be getting ready for the most thrilling contest this generation of architects has witnessed.

BIRMINGHAM'S HOUSING SCHEMES

Birmingham has recently built its 30,000th municipally-built house—an achievement neither equalled nor nearly approached by any other city. I have by me a booklet issued to celebrate the event. It shows aerial photographs of estate after estate, planned in the half-formal, half-informal way one is now very familiar with. The colossal effort represented by these estates must occupy nearly a



Henry Vaughan Lanchester.

" The architectural profession, to an extent previously undreamt of, is torn with internal faction."

In such words the difficulty of nominating a jury for the new R.I.B.A. building was summed up in our leading article of May 7 last, wherein readers were invited to name assessors of their own choice.

" Today," we continued, " it is upon the formation of . . . a middle party that our hopes . . . must principally depend."

To what extent these hopes may be realized may be judged from the official decision announced above.



Robert Atkinson.

quarter of the open space within the western and southern boundaries of the city, a proportion which only the map itself can properly qualify.

★

The houses are of their class good, but much below the average level of design of similar houses in London, Liverpool and Nottingham, with too little variety in plan to make fullest use of the ambitious road plans. There are, I noted, few properly planned corner blocks, without which there can be no suavity or finish.

★

From the handsome booklet it would appear that all this work was accomplished without architectural aid, for there are photographs of the mayor, chairmen of committees and the engineer, but I could find no mention of the designers upon whom fell the real responsibility for the work. Since it is creative work of a high order and considerable magnitude, this omission seems to me like civic ingratitude.

THE ARCHITECT'S DAUGHTER

I have just read *Miss America*, the kindly, ironical essay in verse on the modern woman, by W. J. Turner. Altiora, for that is her name, soliloquizes on the missing thing in her life as she waits in the Sierra Nevada for her divorce. Her father was "the town's boss-boy in architecture," with a staff of fifty architects, and laboured to adorn Philadelphia with skyscrapers, "scanning each cubic foot to the elimination of waste and useless ornament." Growing dejected at the sight of his efforts being demolished within twenty years of their erection, he trips abroad, but "a more dim and dismal lot of buildings than in London I never saw the poor dear gaze so stunned on." Altiora finishes her survey of architecture with the extraordinarily acute conclusion "that there are epochs when the real creation is not by individual men but masses moved by a simple universal passion." But these pass and leave behind a "multitude of asses."

THE BLOT ON PHILADELPHIA

The rest of the book is spent in convincing the reader that she is one of that multitude. Obviously her mother failed to lay her across her knee for the much-needed accolade of her father's tee-square. After marrying another ass, bearing three daughters, and committing adultery out of pity, she is left with her soliloquy. The woman is obviously bored stiff. But why? Are there (to paraphrase Mr. Petulengro) no stars, no sun, no clouds, all good things, in Philadelphia? Or did her father's skyscrapers blot them out, and was that the reason why the boss-boy's architecture is thrown upon the screen of the soliloquy?

★

Altiora. But it may be Mr. Turner's idea to show the skyscraper and Miss America as parallel developments. The building is the outcome of intellect working without passion for commerce. The shape of each skyscraper depends on its value as an advertisement and as a commercial speculation. Its construction is a piece of mathematics. Its design is mixed with brains but not with emotion. It is a mouse delivered of a mountain. Poor Miss America stands beside it, a wonder of intellect—but hers is not the face that "burnt the topless towers of Ilium!"

THE "STYLE FACTOR" IN THE U.S.A.

"Dear Sirs" (writes one who superscribes himself "Marketing Counselor" [*sic*], in addressing THE ARCHITECTS' JOURNAL from New York) "I am making a study of style tendencies in architecture. This is in connection with a book which I am writing, entitled *Styling to Meet Demand*, and also in connection with some work for one of our clients in the architectural and building materials field. I am interested to determine how important the style factor is today in architectural design, and I write in the hope that you will be willing to give me your opinions. Do you feel that a new style of architecture is being developed which is likely to last for a substantial length of time? Do you feel that this is likely to affect greatly the materials used? Will you give me your idea as to the nature of these style changes, and of the designs which will probably be favoured? We are particularly interested in roofing materials, and are desirous of having the above questions discussed in terms of roofing materials. What types of roofing materials do you think will gain, what types do you think will lose, and how rapidly do you think these gains and losses will be effected?"

★

"Marketing Counselor" who thus throws himself into the JOURNAL's arms in a quest for nourishment is, I fancy, what in America is called a "dynamo," and in England—I am much afraid—"hot stuff." He is certainly hot in his pursuit of the future, for he is bent on no less than anticipating its direction and lying doggo in its path, like a blood-leech, to clutch it as it passes. This is "getting there" with a vengeance, and it is a pity that the quarry is so wayward a thing as architectural style. The wind bloweth where it listeth, but the vagrancy of style knows no such choice. I hope that some of our readers will be able to give answers to his questions such as will aid our American correspondent in his heroic exploit of getting ahead of the clock; but I do not expect it. For one thing, we have not in this country yet learnt to conjugate the verb "to style," used in the sense of imparting style; for another, since continual modification of style is due to the designer's wish always to get away from familiar ideas and explore fresh ones, to have a clear prevision of the next style ahead would make everyone turn aside to something different; and for yet another, architecture is the child of circumstance and architects are its slaves.

★

Adam Smith's well-blown-on axiom that demand creates supply is particularly at fault where architectural style is concerned; it is rather the supply of new economic and efficient devices and materials that creates the demand for new styles. Anyone, for instance, who could supply a form of flat roof which decisively answered the present objections to that construction, would create demand for a style. I think therefore that, if the modesty which prevents the counsellor from recommending himself with more than one "I" will allow him, he ought to tell his suppliant marketers that though they may, by forethought and enterprise, give direction to style, they can never hope to ambush it.

THE A.A. EXCURSION

By the time this issue of the JOURNAL appears upon the library tables, writes a correspondent, some ninety-five members of the A.A. will be crossing the North Sea from Esbjerg to Harwich on the return journey from their visit to Sweden and Denmark. A few will possibly be feeling a little seasick, some rather fatigued, but all undoubtedly full of enthusiasm for what they have seen and experienced during their fortnight's tour in those two

delightful countries. Our forefathers may have bitterly resented the incursions of fair-haired Norsemen; nor can the Danes have been very pleased with us when Nelson returned the compliment by dropping shots through the roofs of Copenhagen churches; but this friendly invasion of English into the lands from whence came the long ships is a very different affair, and the visitors have been everywhere received in the kindest way by hosts who have seemed genuinely glad to see and entertain them. The party has not only feasted upon many architectural delights, but has met with charming hospitality from nations with whom it is easy for English people to feel at home. Many have been fortunate enough to be entertained by Swedes and Danes in their own homes, and have been struck with their cordial reception, coupled with a slight formality which is pleasant to experience. The Swedish language is not too easy for the average Englishman to learn, but the word "Skal," with which a toast is drunk, will not soon be forgotten.

★

Three towns have been visited—Gothenburg, Stockholm, and Copenhagen. Each possesses its own characteristic atmosphere and contains good work, both old and new. Thanks to the wide distribution of illustrated magazines and other means of information, we are not so ignorant of Continental architecture as we were, but all the photographs in the world are not as good as the sight of a good thing in the flesh, and there was nothing seen on the tour that did not come up to expectation.

★

The object of closest attention was possibly the Stockholm Exhibition. Fierce discussions have raged, and are still raging, around this exciting show. The Swedes themselves are by no means united in their opinion, and a sharp divergence of view could be noted among the party. Quite the hardest-worked word in Sweden at the present time is *Funkis*, a word far easier to say than our own *Functionalism*, but meaning the same. We in England are beginning to know very well what it means and stands for, and anyone—whatever his nationality—who felt uncertain about it before he saw the Exhibition must have come away with a far clearer understanding of it than could be found by reading countless treatises, even if amplified by footnotes.

★

A full description is not wanted, as it has recently been described and illustrated here; but what no photograph can give is its wealth of colour. The buildings themselves are mainly white, but great sweeps of clear colour applied here and there, bright awnings and masses of flags, make the place delightfully gay. The love of flags is a national characteristic of Sweden: they are flown from buildings, trams, cars, taxis, and even appear as a decoration upon dinner-tables; and they have been used by Asplund in the Exhibition with great skill and enormous decorative effect. The site is undulating and slopes down to the north bank of a broad sheet of water, and faces the hills and trees of the Djurgarden on the other side. Symmetry has not been sought, since the site does not call for it; but the designer has attempted something far more difficult, and, in the handling of masses, the feeling for scale, proportion, harmony and contrast, has brought off successfully a magnificent composition. Every advantage has been taken of the contours and all natural features; flowers, most carefully disposed, appear in great quantities, and every small detail has been considered, even to the design and colour scheme of the uniforms of the attendants and the lettering on the smallest kiosk. The Exhibition is making a great hit and may have far-reaching effects, and, whatever one thinks about the merits or demerits of *Funkis*, gives one an enormous thrill.

★

The complete success of the whole tour is largely due to the excellent arrangements made by those on the spot who gave up many hours of their time in organizing and conducting the visits, and the A.A. is very grateful to them all. Ladies and gentlemen, the toast is: "The Architects of Sweden and Denmark. Skal!"

GUILDFORD CATHEDRAL COMPETITION

The conditions of competition for the proposed cathedral for Guildford again appear in this issue of the JOURNAL.



Harold B. Rowe, A.R.I.B.A., who has won the Brenforce Travelling Scholarship, of the value of £300, and the gold medal awarded by the Institution of Structural Engineers, again secures that honour for the borough architect's office of Newport, Mon. When instituted three years ago, it was won by the deputy architect, Johnson Blackett.

They discover a very interesting manner of arriving at their objective, for though there might be objections to a competition confined to ecclesiastical architects only, there can be nothing said against a preference for men whose tastes have led them towards church design.

CALTON JAIL SITE

Public opinion in Edinburgh is oscillating between the need for a castellated or a Greek style of architecture for the Government buildings on Calton Hill, whereas in the minds of most architects the controversy is confined to a question of degree. Who can design the best building for the site: the Office of Works or an individual? It appears that when the Edinburgh Corporation saw the models and understood the terms of an official ultimatum that left them with the Whitehall design or nothing, they felt that an official building was better than none at all. The pity of the thing is that our argument is carried on in terms of the best that can be got, but is fought with any weapons that come to hand. The Office of Works will probably win the round, and their building will as probably be a quite creditable affair that takes due cognizance of its noble surroundings and high purpose. I have not seen the models, and the only reference to the design that frightens me is a reference to dormer windows (a wearisome foible of the Office of Works). Otherwise, marked horizontality and restraint are factors that promise well. The whole principle is nevertheless wrong, and the battle is not yet over, nor is it for ever to the strong.

ASTRAGAL



The main front to Belcher's Lane, Bordesley Green. The school stands on a site of about ten acres, and provides accommodation for 474 girls and boys.

SECONDARY BOYS' AND GIRLS'

DESIGNED BY

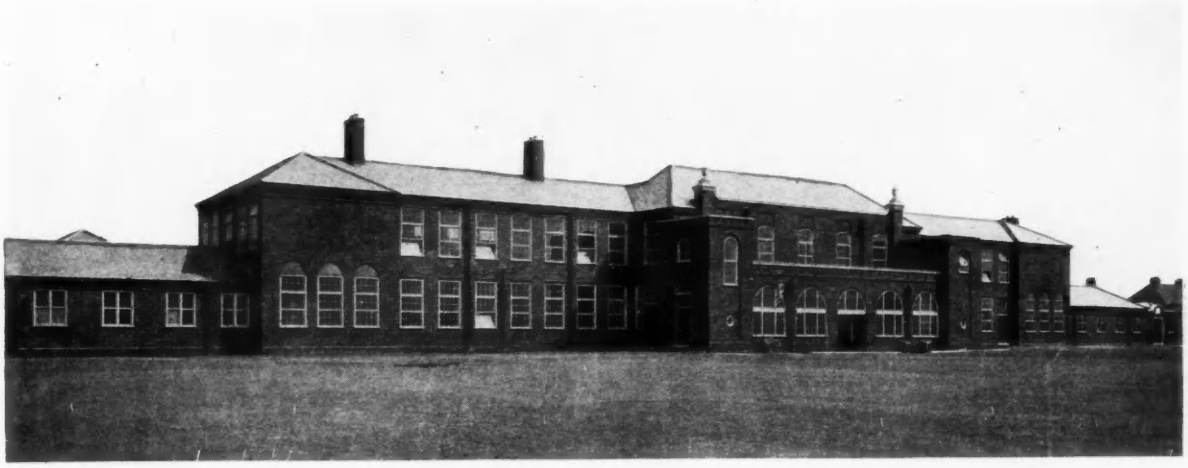
THIS school is the latest to be completed by the City of Birmingham Education Department. It includes sixteen classrooms, of varying sizes, providing accommodation for 474 children. The assembly hall is the central feature of the plan, and on two sides are open quadrangles around which are grouped the boys' and girls' departments. The gymnasium and the science department are planned at the rear of the building, overlooking the playing-fields. Adjacent to the gymnasium are large changing-rooms, fitted with baths for boys and girls, each having separate access both from the playing-fields and from the inside of the building.

The science and practical rooms include physical, chemical and biological laboratories, and an art room. There are also a woodworking room for boys and a domestic science room for girls.

Overlooking the playing-fields are the staff rooms, and in the front portion of the school the rooms for the head



The main entrance from Belcher's Lane leads through a vestibule into the entrance hall, facing which is the assembly hall. On the left of the entrance hall is the headmaster's room, and on the right the senior mistress's. Above is the library.



Looking from the playing-fields. In the centre of this side, with semicircular-headed windows and doorway, is the gymnasium, a near view of which appears below.

SCHOOL, SALTLEY, BIRMINGHAM

H. W. SIMISTER

master and senior mistress. In close proximity to the main entrance is a medical inspection room.

Separate cloak rooms, lavatories and drying-rooms for damp clothes are provided for the boys and girls. They are planned at either end of the building. All lavatories are approached from the inside of the school through "cut-off" lobbies to ensure efficient ventilation.

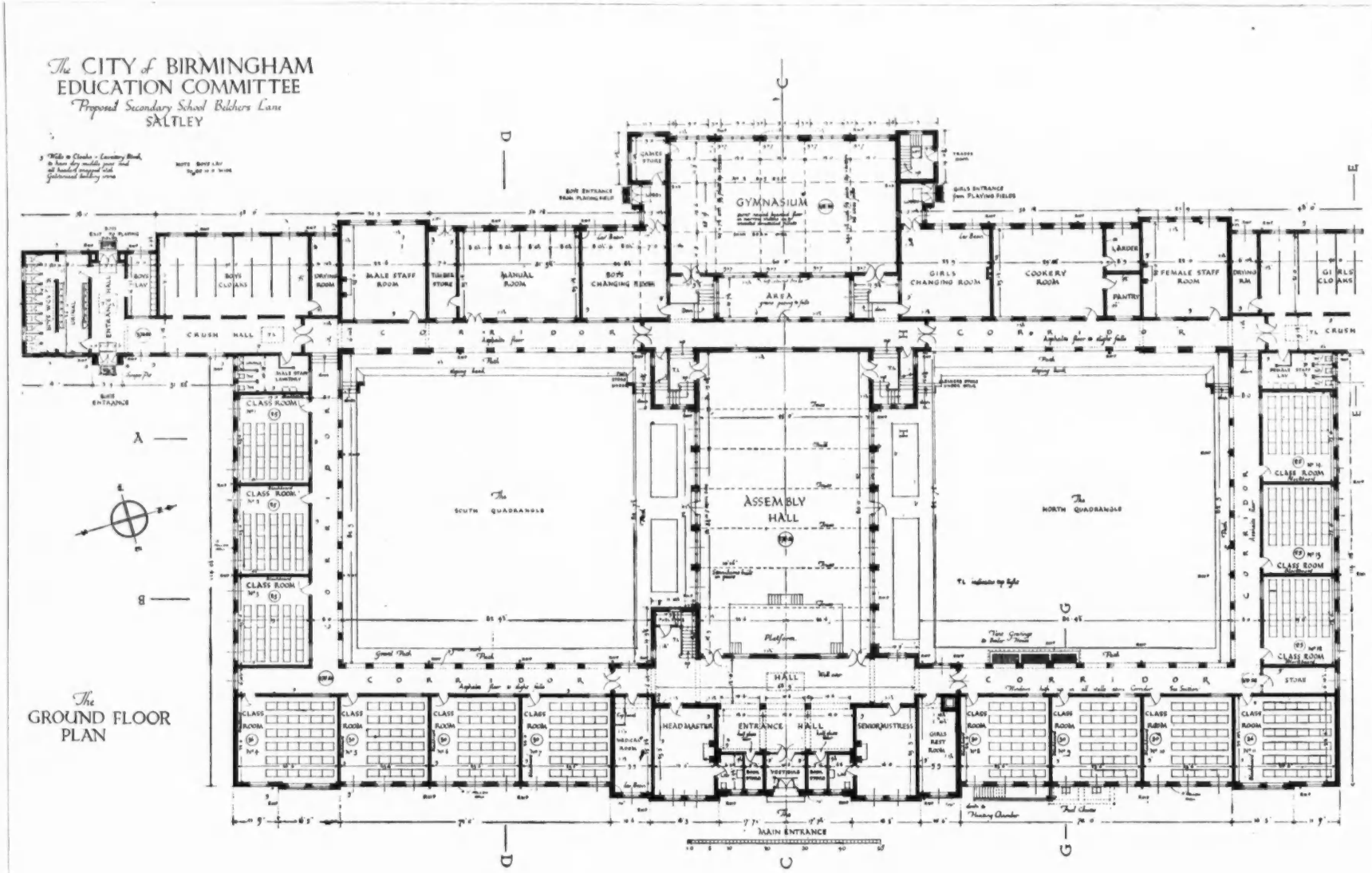
On the upper floor in the front block is a large room to be used as a school library. On this floor also is a dining-room to accommodate 100 children.

All the teaching rooms, halls and laboratories, etc., are lighted on both sides, thus ensuring thorough ventilation, ample light and the maximum amount of sunshine.

The school is built of multicoloured bricks with patent stone dressings sparingly used. The roofs are covered with slates. In addition to the playing-fields there are tennis courts and a football and hockey field.



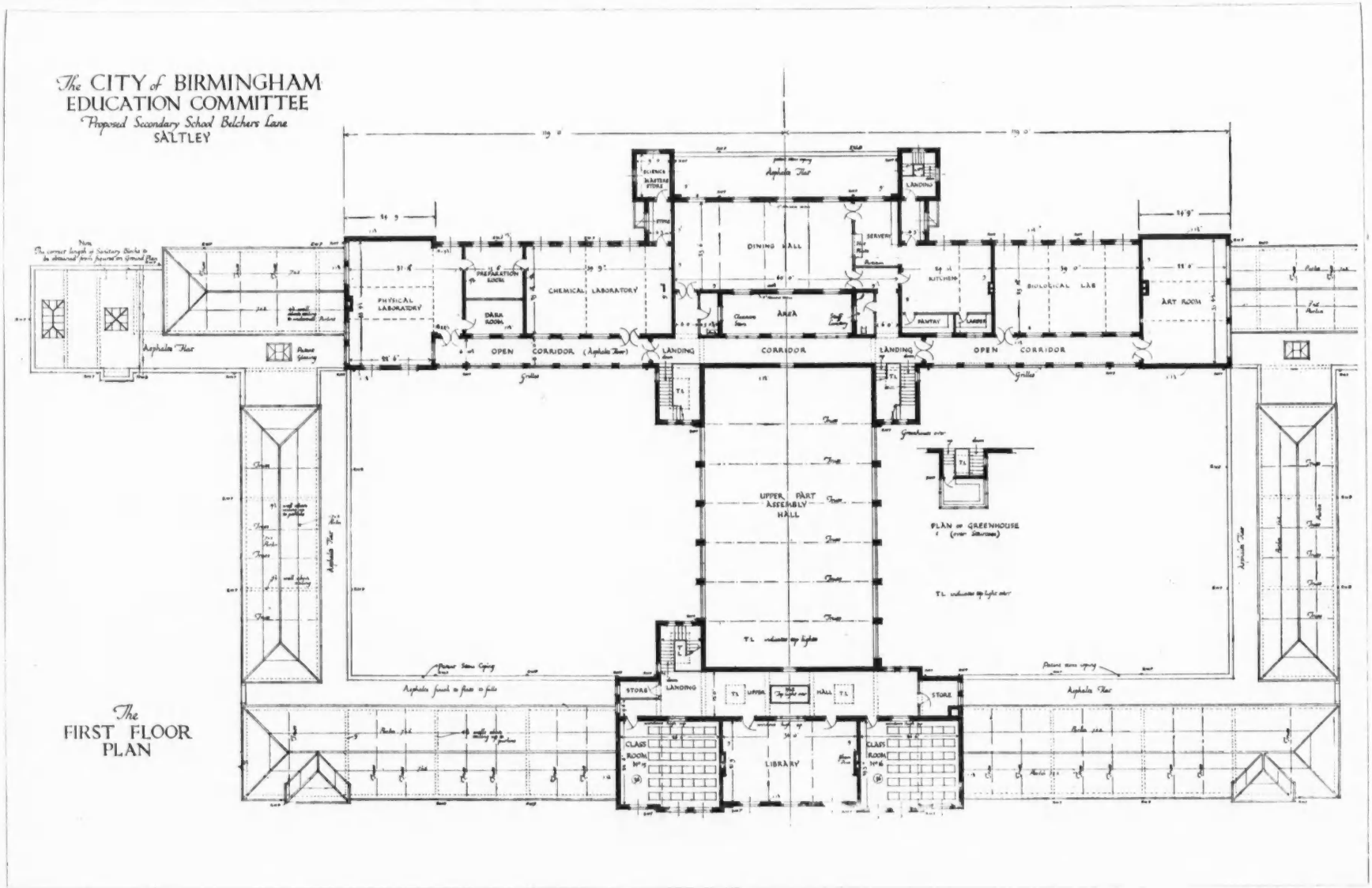
The gymnasium on the ground floor is 60 ft. long by 35 ft. wide, and is second in size only to the assembly hall (see plan on page 154), which measures 80 ft. by 45 ft. Above the gymnasium, and set back from the façade, is the dining hall.



On the ground floor the entrance hall, the assembly hall and the gymnasium occupy the centre portion of the school, and are planned one behind the other to divide the boys' from the girls' departments. The boys occupy the left half of the school and the girls the right half. Each department is provided with a quadrangle and with seven classrooms. In addition, there are a manual room for the boys and a cookery room for the girls. The architect's drawing has been curtailed on the right: the lavatory that occurs here is similar to that seen on the left.

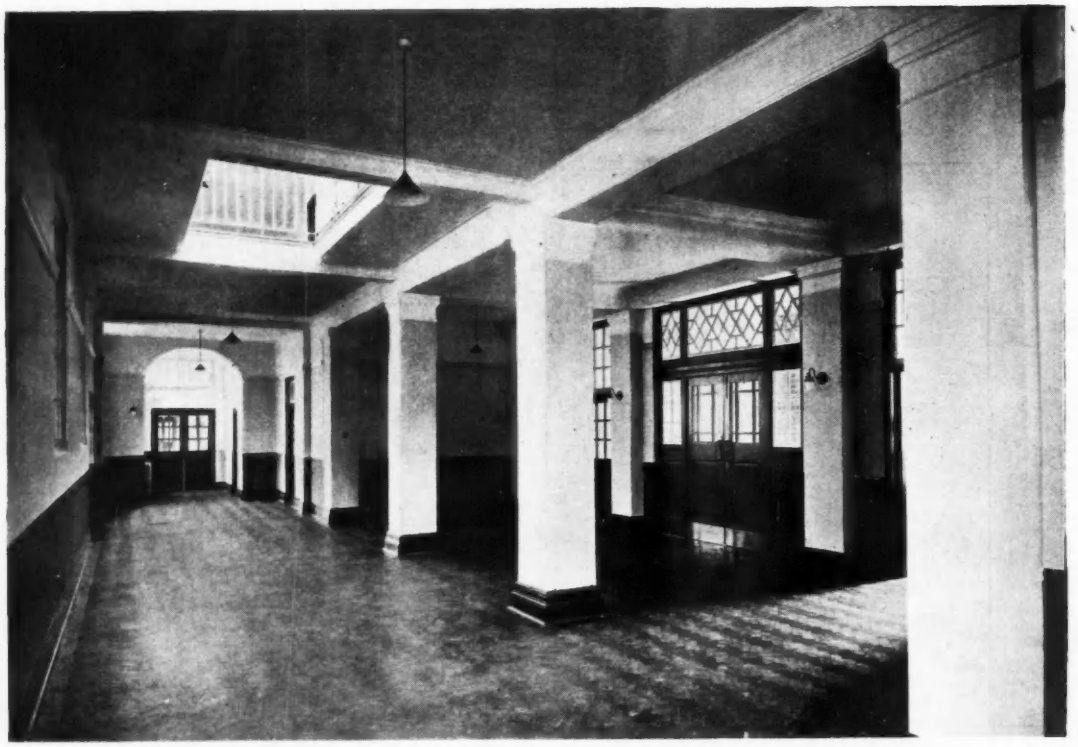
departments. The boys occupy the left half of the school and the girls the right half.

been curtailed on the right: the lavatory that occurs here is similar to that seen on the left.

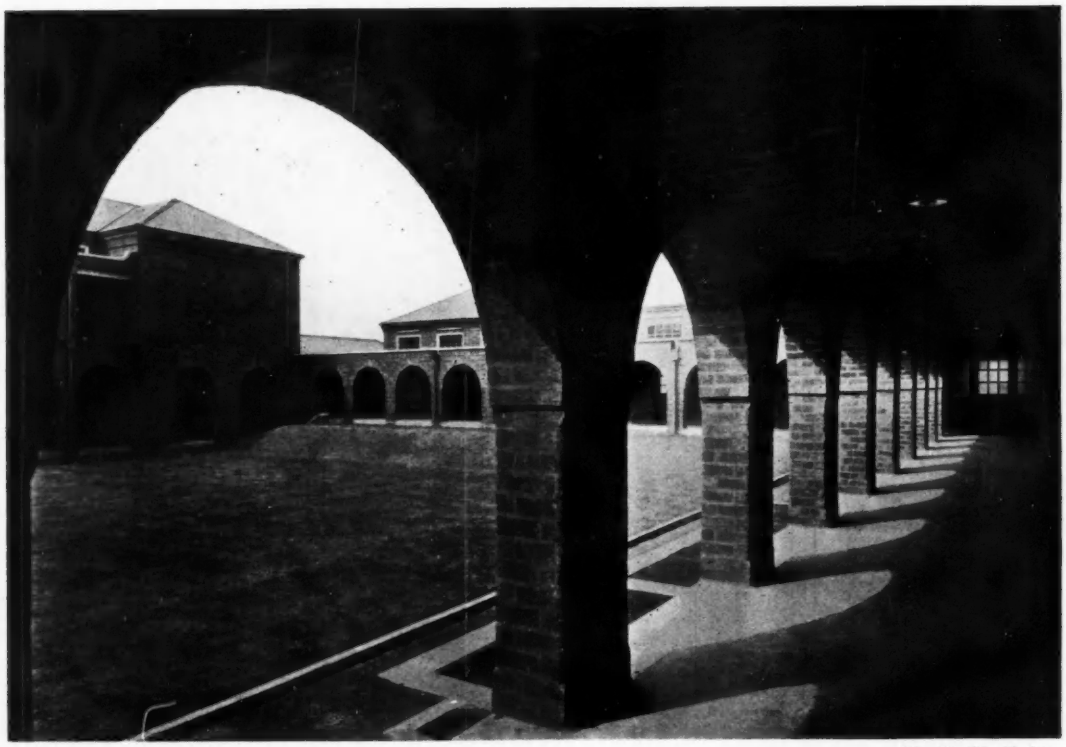


Saltley Secondary School.] [By H. W. Simister.

The first floor is planned as two independent units, separated by the upper part of the assembly hall and approached by separate staircases. In the front portion of the school, above the entrance hall, are two additional classrooms, making a total of sixteen, and the school library. In the rear portion are the dining-hall, art room and physical, chemical, and biological laboratories. Over the right-hand staircase is a greenhouse. A caretaker's house has been built on a site near the school. Numbers in circles indicate classroom capacities.



The entrance hall, looking towards the corridor leading to the girls' department. In the left-hand wall are the doors of the assembly hall. On the right-hand side of the photograph is the main entrance from Belcher's Lane.



Saltley Secondary School.] [*By H. W. Simister.*

A view of the girls' quadrangle from the corridor, or cloister, from which access is obtained to the classrooms. A similar quadrangle is provided for the boys. In addition, there are playing-fields, tennis courts and a football and hockey field.

THE MANSARD ROOF

BY E. MAXWELL FRY

"A building shall not be erected of, or be subsequently increased to, a greater height than eighty feet, exclusive of two stories in the roof . . ." So runs section 47 of the Act of 1894; and hence the mansard roof, characterized here as uneconomical and unsound.

ONE of the distinguishing features of contemporary architecture in London is the prevalence of a type of roof which anyone who is at all familiar with the steel-frame architecture of America or the reinforced concrete architecture of Germany and the Continent must find illogical and very difficult to explain. I refer to the mansard roofs of Regent Street and elsewhere, which have become accepted currency for most architects because they are to be found in profusion and variety, but which, nevertheless, are to be challenged from every point of view as an undesirable element in the body of architecture as it flourishes at this present.

If it can be proved to be a worthy and homogeneous expression of something which modern architecture should express and must include, then it must stay. If, on the other hand, it can be proved an excrescence, then it should be replaced by something better.

The origin of this mansard roof is not very far to seek, and I doubt whether there is much question that the roof is the result of too close a reading of a building bylaw that was originally framed to ensure that new streets should have a certain minimum allowance of sunlight and air, but which quite certainly had no intention of dictating the forms which modern buildings were to assume.

The bylaw in question is of the Act of 1894, where, in section 47, one reads that "a building (not being a church or chapel) shall not be erected of, or be subsequently increased to, a greater height than 80 ft., *exclusive of two stories in the roof*, and of ornamental towers," etc., etc. (see figure one).

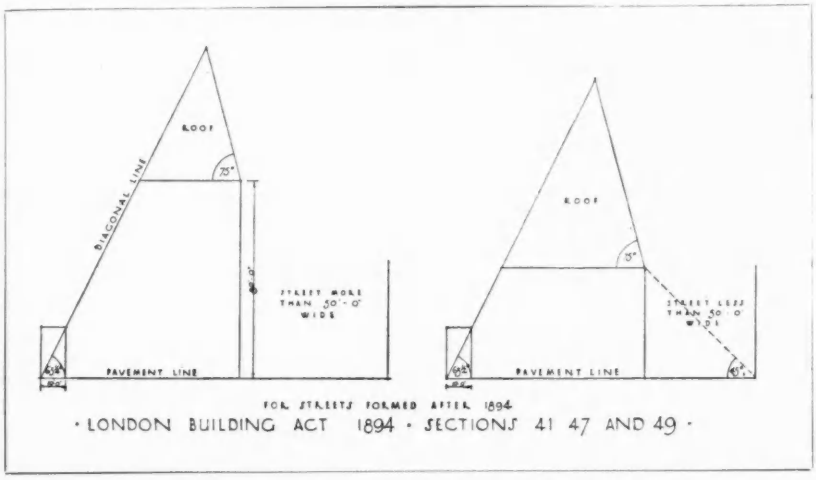


Figure one. The law as it stands, graphically expressed.

The italics are mine; but if the section is read by a care-taking, responsible architect, who is about to design an expensive building for a business client, in a street where rents are high and space is money, and where, in addition, mistakes are very costly to the client, and the architect, the italicized phrase will stand out, and in block letters, after a little reading, as its ambiguity seizes upon the unfortunate man.

If he doubts the necessity or desirability for a pitched roof in a modern steel-frame structure, feeling strongly the need for a logical expression of modern building, as one may suppose the architects of the Underground Building or Bush House felt the need, then he must either overcome the difficulty by neglecting the reference in the bylaw to a roof, and keep his building within the prescribed angle, or else he must design a mansard roof as well as it may be designed, and admit some measure of defeat.

In figure two, I have tried to compare in a general way two different readings of clause 47, the first being that most commonly accepted and the second a variation which preserves a vertical face to the top of the building, and does no injustice to the true nature of modern construction.

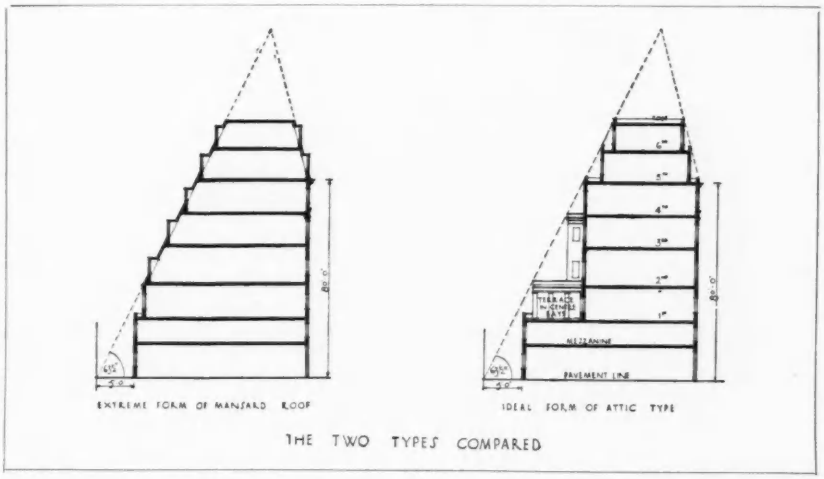


Figure two. The left-hand side shows the type of building produced by law, and on the right is an attempt to design sanely in spite of the law.



Cockspur Street, from Trafalgar Square, showing the effect of vertical set-backs and horizontal sky-lines in opposition to mansard roofs and dormer windows.

By adhering to the angle line of 75° laid down by the bylaw, the mansard roof gains a certain hypothetical amount of floor space. By projecting nearly unbroken rows of dormer windows, it nearly manages to make this floor space of real value, and as nearly defeats the entire object for which the bylaw was drawn up.

The attic roof, on the other hand, appears to lose if one only measures for space. By going up in vertical steps that keep within the angle of 75°, it loses floor space at each level. It gains substantially by having all its inside walls vertical and its windows normal, and it may also gain to the extent of a small terrace at the level of each set-back. Further than this, of course, it gains by being able to offer a normal and quite desirable suite of offices on the highest floors of the building, so that, instead of the obvious attic-looking rooms of the mansard type, there are airy and in every way superior floors of normal offices or residential flats.

The fact that mansard roofs are inimical to the economy of steel-frame construction and require all sorts of bent members, steel rafters, concrete, and what not before ever, in these days of fire-proof buildings, a slate or a tile is laid, does not need further explanation.

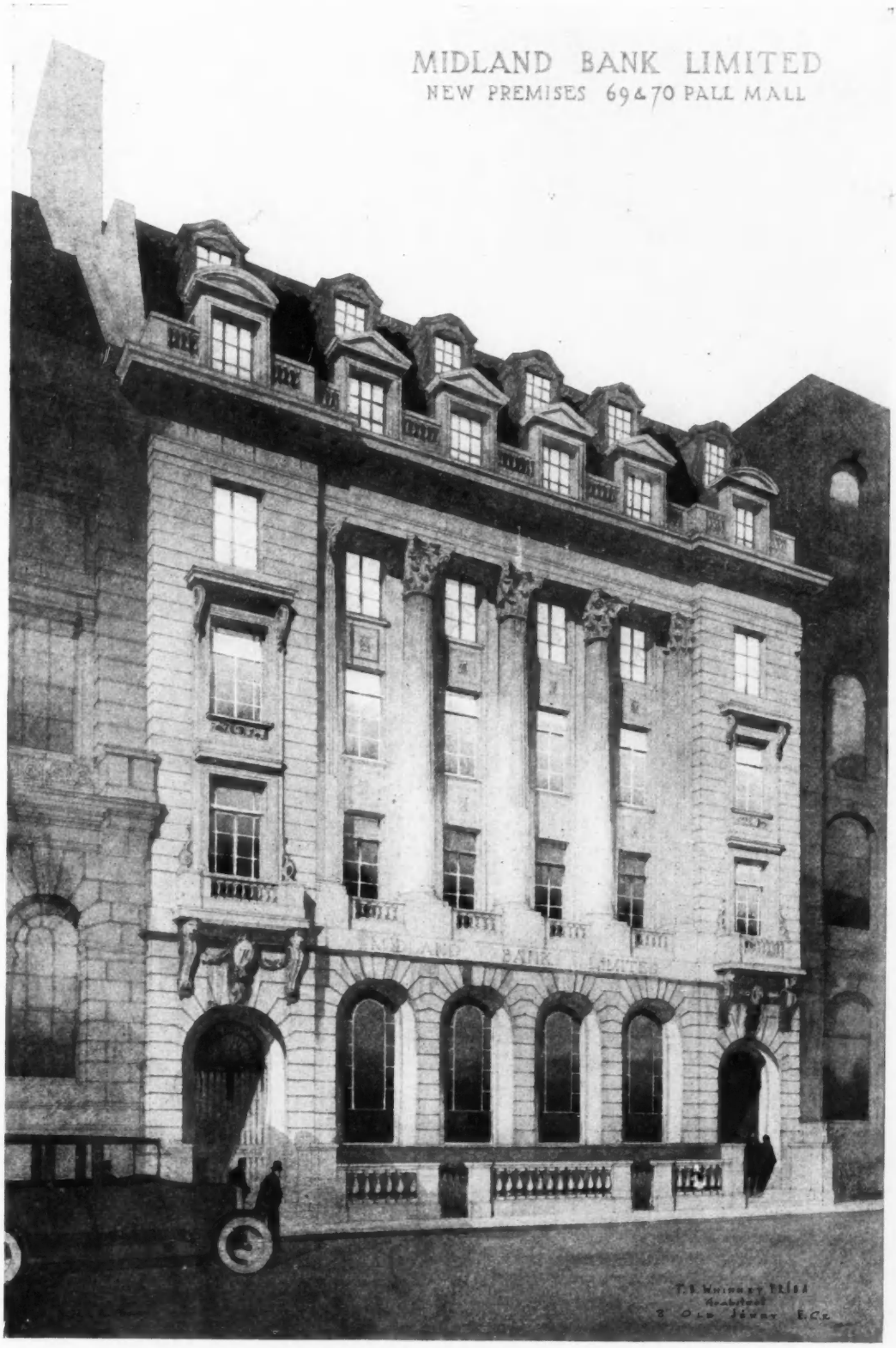
Steelwork is at its cheapest and best when it is composed of straight members set in square series, and to this formation it seeks always to return. Used thus, it is being true to its nature and exercises its chief virtue of economy and rapidity. Therefore, the mansard roof, by keeping a mass of twisted steelwork in the roof, impedes the progress of modern architecture towards its fullest expression; for whether the top stories of a street façade should be vertical or inclined planes, considered from the commercial standpoint as rentable areas, or from the æsthetic standpoint as the defining planes of the section of the street, there can be no manner of doubt that, considered *constructionally*, the mansard roof is uneconomical and unsound.

The objections to this mansard roof on æsthetic grounds are largely bound up with the true expression of steel construction.

If Sir Edwin Lutyens, by incurring enormous expense, can so cover steelwork with stone as to produce the appearance of a veritable stone-built



The unbalanced effect produced in Waterloo Place as a result of the addition of a mansard roof on the United Services Club, seen under construction on the left.



The Midland Bank, Pall Mall—a typical mansard roof, bursting into full flower.

building, he achieves a *tour de force* which removes him from the argument. One has to say, "Oh well, he is an unscrupulous artist, and not playing our game at all."

As soon as economy enters into building the true nature of the construction must be allowed to express itself. This expression I have defined as a vertical and horizontal expression, and it will be found developed in such buildings as the Underground Building, Celanese House, Canada House, and any well-built factory. To a certain extent, it is expressed in the comparative simplicity of nearly all new buildings, including those with mansard roofs. In place of many breaks in the surface, there are fat window-heads and a few prominent balconies—the rest is plain, admirably plain.

Why, after such fine expanses of brickwork which go so far to establish the vertical plane, the building should fall away into the barbarity of a heavy-tiled sloping mansard roof, the Act of 1894 can alone explain. It is all very grievously wrong and, as recent buildings may serve to show, of very little use for the purpose for which it was drawn up.

The latest mansard roof appears upon the Admiralty extension in Whitehall. It conforms to type in most particulars, but if you look up to it from the street it is hard to say at once whether it is, in fact, a mansard or an attic story, because the windows ordained by law to be in the roof are set so closely together that they form nearly a continuous surface, blocking out precious daylight from the street and looking rather ridiculous. The evil of this, from the point of view of health, is that the line of the pseudo-attic face is advanced *beyond* the prescribed line, and the law is defeated.

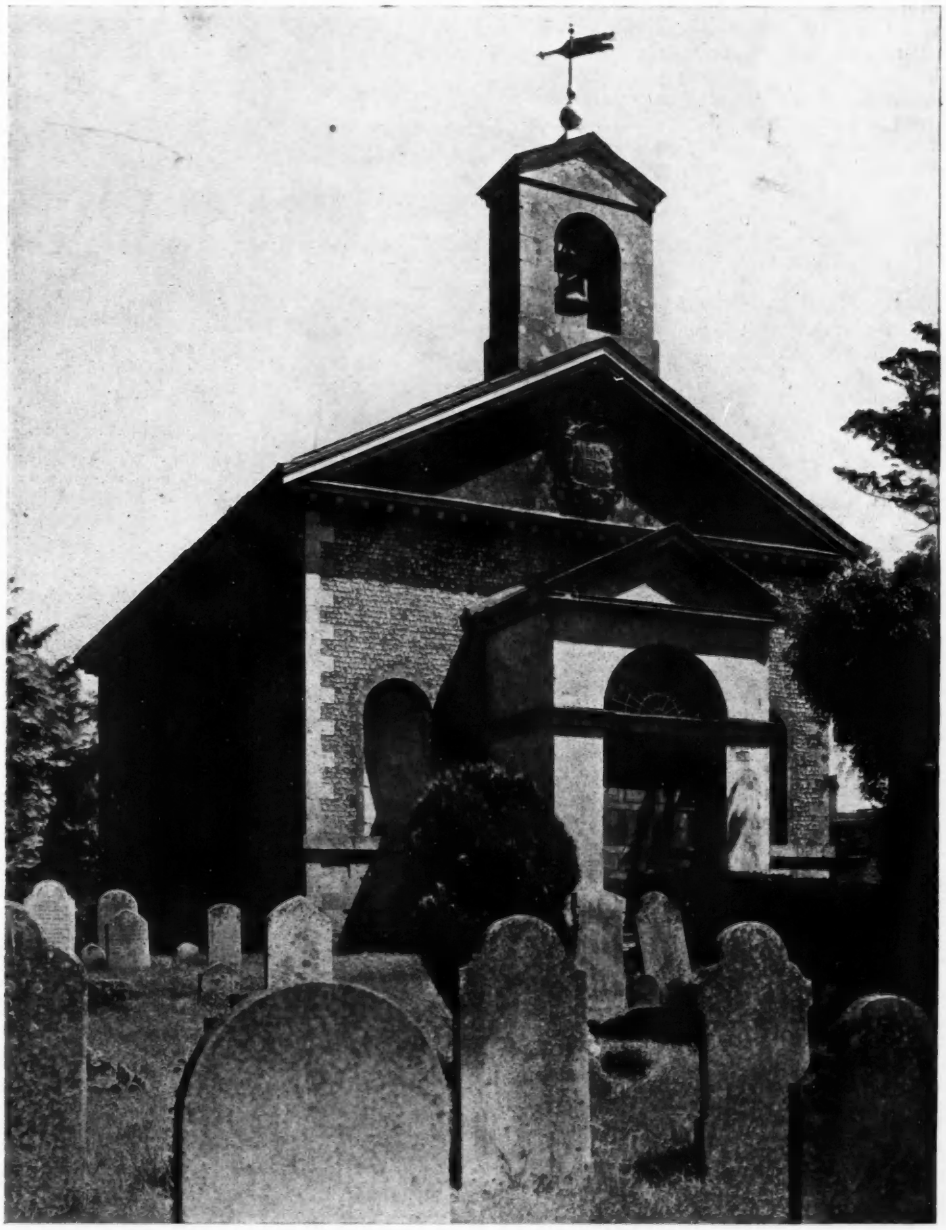
The last form to be mentioned is a perversion, and arises not out of the Act itself, but from the habit engendered by the Act. The addition of a roof to the United Services Club, which completes the formal symmetry of Waterloo Place, would under conditions of normal artistic reasoning be constructed so as to be complementary to the attic story of the Athenæum Club opposite. This would be an act of normal courtesy to a fine building. Instead of this, a form of mansard roof has been built in complete disharmony with the exquisite balance of the composition. This can only have been done out of habit, and would have been impossible in a more strictly logical period. This, I feel, is the mansard roof at its very worst.

Finally, there is the general question of architectonic form in relation to our great cities as places to live in. It is certain that as science, urged by public opinion, investigates problems of atmospheric pollution, this evil will cease to trouble us. The rapidly disappearing open fire will last a few years longer, but one may safely say that electricity and economic coal consumption will tend to make the enjoyment of a healthy town life much more possible. With high buildings and a city of sloping roofs, this life would be limited; but if one imagines a city of normally high buildings constructed with vertical set-backs, making terraces and roof gardens, one sees at once how great would be the gain.

At the moment we are prevented from making the fullest use of the expensive buildings we are putting up because of the old-fashioned wording of the building code. It is easier to evade the intention of the Act by a multiplicity of dormer windows in a high-pitched roof than it is to build cleanly and vertically, so that the sooner the law is altered to meet the improved conditions of the future and the most scientific methods of construction the sooner will we be able to develop an architecture that represents the best aspirations of our present civilization.



Making the best of a bad job, but with the top story looking like servants' quarters.



ENGLISH PRECEDENT No. 126

CHURCH OF SAINT MARY THE VIRGIN, GLYNDE, SUSSEX

In this view, taken from the north-west, the just size and right placing of the coat of arms in the tympanum show the skill of the designer who composed this simple but varied façade. The three pediments, well proportioned and assembled as they are, might not have combined agreeably without this coat of arms to serve as their focus; uniting the whole composition without attracting the eye unduly.

The arches combine no less happily than the pediments, and the belfry, with its curiously Italian look, crowns the façade without overweighting it.

The only fault easily found in the design is the lack of connection between the porch and the body of the church. Had the porch been built of flint, and had its impost-moulding been less pronounced, this defect would not have been apparent.

—[H. S. GOODHART-RENDEL]

LETTERS FROM READERS

Professional Tolerance

SIR,—Your leading article on "Professional Tolerance" in last week's issue negatives the popular saying that "Two of a trade seldom agree": yet popular sayings are invariably found to be founded upon fact—that is, upon experience. It often happens that two men of ability are unable to work together, whereas a genius will draw towards him and develop the powers of men who without his inspiration would accomplish little. In the remarkable association of Wren and Vanbrugh, however, we see two men of outstanding ability working together harmoniously, often in circumstances naturally provocative of dissension. Probably we shall be right in concluding that this was largely owing to the gentle character and charm possessed by Wren. When we read, in contemporary records (as those made available in the Wren Society volumes), the story of his association with men and women of every class and capacity, we cannot fail to be impressed by Wren's patience—patience with capricious employers, patience with scheming enemies, patience with rogues, patience with fools. He seems imperturbable, indefatigable, but never intolerant.

On the other hand, Vanbrugh, young, distinguished in arms, in letters, in society, having exceptional vision and ambitions and with that flair for architecture so rare in the professional and so often squandered by the amateur, defers to the older master, but pursues what he believes to be the right, without deviation. As the writer of your leader points out, these qualities were recognized by Wren, who encouraged, supported or withdrew: all in the most reasonable way.

The history of relations between architects in the seventeenth and eighteenth centuries is an almost unbroken record of jealousy, of trickery and of calumny. We conceal these things better now, but still they exist. How seldom does one hear of the big man helping the small one by influencing work into his way! How often is the architect in large practice seen to "grab" business and sometimes even meanly to supplant his less distinguished confrère to secure a good job! This is done and, when done, little said of it. The fact is that fashions alter, labels alter, but human nature does not alter.

Professional etiquette is a good thing, for it sets standards. But it is superficial; whereas the kindly nature that actuates the helping hand is not superficial—it is profound, it existed in every century, and it is widely diffused in this century. Perhaps the greatest factor in promoting amity amongst "those of a trade" is personal contact, such as is accomplished by meetings of societies, whether at indoor or out-of-doors functions. It is difficult to be jealous of, or at enmity with, a man whom one finds human and pleasant in intercourse. Goodwill has ever sprung from good company, which is the best antidote of professional jealousy.

May I add a word about the Wren Society volumes? Recently, I mentioned these to an architect friend, suggesting that the annual volume was astonishing value for a guinea subscription. He replied: "Oh, I can always see them at the Institute Library." The fact being that he had not seen them and certainly could not enjoy them as if he had them on his own bookshelves. They are books to be picked up, perused and enjoyed. They are inspiring and highly educative; indeed, I do not know where so much architectural food is to be obtained at so small cost, and if anyone can tell me, I shall be grateful for the information.

NATHANIEL LLOYD

Priced Bills of Quantities

KARSHISH AGAIN REPLIES

SIR,—Mr. Downe overlooks that we are discussing the Honeywood case where the quantities are *not* part of the contract; that though it may be *expedient* for builders to price items consistently with cost, it does not follow that they do so; and that whether they do so or not, the matter has no bearing on the fact that the contract forbids, in letter and in spirit, any use being made of the priced bills except by the quantity surveyor for the purpose of valuing variations.

I referred Mr. Downe to Mr. Leaning's letter because Mr. Leaning is a high authority on quantities, and I thought his statement of the facts would not gain weight by my repetition of them. There is no discrepancy between us. Discretion has a larger place in fixing rates than any science of pricing has. Builders have to face the risk of variations reducing profits, but hope otherwise; their rates are the speculative details of the speculative totals of speculative tenders—or "bids," as they call them in America—and the assumption that they can carry out at a profit all items they have priced, as Mr. Downe supposes, is not justified.

Mr. Taylor's opinion of Grigblay, as temperamentally unsuited to pricing out quantities, amused me. I have no doubt he is right and, as it is a point in Grigblay's favour, I bear no resentment. I judge Grigblay to be a man who can grasp and command all details of his business and is capable of reviewing his estimator's work and, by the intuition experience gives to an active mind, of modifying the rates, or amending the total with a percentage on or off, so that his tender shall represent his own judgment and no one else's.

KARSHISH

[*This correspondence is now closed.*—ED. A.J.]

Group Specification

SIR,—I read with considerable interest Mr. T. Sumner Smith's views on the above subject in your issue for July 9.

It is encouraging to learn that the art of specification writing is still a conscientious art in some quarters, and not merely something that has presumably been laboriously compiled by "the articled pupil" who still strives to acquire his "rudiments of building construction" in the traditional way, by copying out selected passages from obsolete specifications and arranging them in the time-honoured sequences; a jig-saw mode of compilation which, I respectfully suggest, can neither claim to be educational nor productive of a scientific and comprehensive guide to the prospective tenderer.

Also, as Mr. Smith implies in his rather happy and ingenious classification, just as the types of fowls govern the type of eggs, so should the type of contract govern the type of specification; but, as a piquant example, how often do we find woefully incomplete specification for a contract that is not based upon bills of quantities! The result is as disconcerting as it is to those hens whose brood of "chicks" takes to water.

What is the explanation of this apparent lack of thoroughness, I wonder? It is hard to believe that its proper importance is underestimated by those responsible for the training of our architects.

PROVINCIAL

COMPETITION RESULT

The following awards have been made in the competition for new Municipal Buildings, Chapel Road, Worthing:

First (£350), Charles Cowles-Voysey, London.

Second (£250), Percy Tubbs, Son and Duncan and S. Rowland Pierce, London.

Third (£150), Willink and Dod, Liverpool.

Fourth (£50), William A. Funnell, Purley.

The assessor, Mr. Henry V. Ashley, also commended the design submitted by Verner O. Rees, London.

It is hoped to illustrate the winning design next week.

Settling-Up Honeywood : x

THE BATTLE OF THE BRICKS

BY KARSHISH

(H. B. CRESWELL)

The owner, Sir Leslie Brash, has notified the architect, Spinlove, of various defects, among which the failure of the inside painting is the only serious matter, and has taken strong objection to the bill of extras.

GRIGBLAY TO SPINLOVE

Dear Sir, 24/6/26.

As arranged in your interview with Mr. Grigblay on the 10th, we have been in correspondence with Messrs. Hoochkoft on the subject of refund of their charge for picking facings. We enclose copies of letters and await your further instructions *re* same.

As Mr. Grigblay reminded you, the bricks were selected by you and ordered by us to your instructions without our seeing samples, and were inspected by you on delivery. You afterwards informed us you had arranged with Hoochkoft to send their picked quality, and we paid them for picked as per their quotation to you.

We must again press for certificate for *£1,316 3s. 1d.* Mr. Grigblay understood from you that certificate would follow, and we expected it would be received before now as it is a long time overdue.

Yours faithfully,

GRIGBLAY TO HOOCHKOFT (ENCLOSURE 1)

Dear Sirs, 16/6/26.

The architect objects to your charge of 28s. extra for picked facings over your original quotation of 147s. per thou. He states you agreed to pick over free of charge as the bright-reds objected to were not according to approved sample. We will thank you accordingly for refund of £92 paid you by us in error.

Yours faithfully,

HOOCHKOFT TO GRIGBLAY (ENCLOSURE 2)

Dear Sirs, 21/6/26.

Mr. James Spinlove gave us order for picked as per our special quote to him of 175s. per thou. as duly invoiced by us which please note is correct and oblige.

Yours faithfully,

Spinlove handled this matter badly. Instead of getting samples and quotations through the builder, he dealt direct with Hoochkoft and told Grigblay to order a certain broken-colour brick at a certain price without sending him the approved samples or otherwise letting him know what bricks he was to expect. He also did not definitely rule out a bright-red under-burnt sample to which he objected, and Hoochkoft accepted the order, perceiving that they could contend that their bright-reds had not been excluded. The bright-reds, to the amount of about 15 per cent. of the whole, were delivered, and were used by Grigblay until Spinlove stopped him. Spinlove then had a wrangle with Hoochkoft, who asked 35s. a thousand bricks extra for picking out the bright-reds, which charge Spinlove refused to allow on the grounds that Hoochkoft had agreed to exclude the bright-reds. Hoochkoft then reduced their claim for extra price to 28s. and, by manipulating an ambiguity led Spinlove to write them a letter that might be interpreted as agreeing to the extra price although he meant the opposite.

SPINLOVE TO HOOCHKOFT

Dear Sirs, 26/6/26.

Mr. Grigblay has sent me copy of your letter to him stating that I agreed an extra price for picked facings.

I did nothing of the kind. As you are well aware, I refused to countenance the extra; I cannot pass your account for more than the rate of 147s. a thousand originally quoted, and accepted, and I have so informed Mr. Grigblay.

Yours faithfully,

By yielding to impatience and showing bad manners Spinlove throws away the advantage he has in knowing better than to do so. If it comes to a slanging match he will have no chance against Hoochkoft. He also makes a great mistake in asserting himself before he knows what position Hoochkoft takes; for if he is forced later on to withdraw, he will lose ground that he might otherwise hold. The vehemence of his letter, too, is a sign of weakness. If he were sure of his case he would not be so noisy in proclaiming it.

SPINLOVE TO GRIGBLAY

Dear Sirs, 26/6/26.

As I told Mr. Grigblay, I did *not* agree Hoochkoft's price for picking. I gave you no authority to pay the extra, and I cannot pass the account for more than the originally quoted price of 147s.

I enclose certificate for £1,000 further on account. I should explain that Sir Leslie Brash raised great objection to the total of the account, and I could not very well draw the certificate until I had had an opportunity of explaining matters to him. Even so I am afraid he may make difficulties about honouring the certificate, and as there are various matters in dispute I do not feel able to certify for more than £1,000 at this time.

Yours faithfully,

It will be noticed that Spinlove has, by sloppy organization and lack of precision in expressing himself, not only given Hoochkoft an opening for setting up an unfair claim, but has also misled Grigblay, who could have no other reason for paying Hoochkoft's extra charge than the belief that Spinlove had told him to pay it.

If Spinlove is satisfied that Grigblay is entitled to a certificate, he is bound to draw it; and the reluctance of the owner to accept the account or honour the certificate is no justification for Spinlove to hold it back.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 26/6/26.

Grigblay has been pressing for a further certificate on account. I held this up until I should have had an opportunity of going into the account with him and with you, although the amount—*£1,316 3s. 1d.*—has, in fact, been due to him since *early last February*. As some items in the account are still in dispute I have certified for £1,000 only. This leaves *£2,332 13s. 7d.* as security in your hands for the making good of defects, and to cover any deductions which may hereafter be made from the account.

Yours sincerely,

HOOCHKOFT TO SPINLOVE

Dear Sir, 28/6/26.

We were naturally surprised at the contents of your letter. We may say that we regret the confusion that has unfortunately arisen, but you have evidently overlooked that you ordered picked as per our special quotation to you of 175s. and that we duly acknowledged same. This you will see is quite correct if you will refer to previous correspondence at the time. Trusting the above explanation will be quite satisfactory to you,

We remain, dear Sir,

Yours faithfully,

Hoochkoft are plausible rogues. They seem likely to get the better of Spinlove, who will find it difficult to believe this letter to be part of a deeply-laid scheme to deceive him.

GRIGBLAY TO SPINLOVE

Dear Sir, 28/6/26.

We have to acknowledge certificate for £1,000.

As you sent us copy of Messrs. Hoochkoft's letter quoting 175s. for picked facings, and afterwards wrote us you had arranged with Hoochkoft to supply picked, we naturally paid their invoices in accordance and do not see how we could be expected to do otherwise. We do not see what more we can do in the matter.

Yours faithfully,

Spinlove is getting the worst of this. He has put himself into the same kind of difficulty as that in which Brash finds himself over the Riddoppo paint; that is to say, he has made two parties who should be accountable to one another each accountable to him. *Experienced architects are careful to avoid dividing responsibility, and are particularly wary of sandwiching themselves between conflicting parties as Spinlove has here sandwiched himself. This, in fact, is a first principle of what good organization means for architects.*

SPINLOVE TO HOOCHKOFT

Dear Sirs, 30/6/26.

Our early correspondence makes it perfectly clear that I objected to the bright-red samples when I accepted your tender, and that you accepted the order on the understanding that they were not to be included. When I found the bright-reds *were* being included in deliveries I at once told you consignments containing them would not be allowed on the site. When you then proposed an extra charge for picking over, I refused to agree, but called upon you to supply to approved samples and pointed out that it was no concern of mine whether this was effected by picking or otherwise. I made myself perfectly clear and I will not allow the extra charge.

Yours faithfully,

Spinlove evidently feels the need of justifying himself, or he would not enter upon a florid interpretation of facts which he twice states are "perfectly clear." If they were perfectly clear it would not enter his head to insist on the point. Hoochkoft will be quick to notice this, and also to notice Spinlove's naive admission in his last sentence, that if he had *failed to make himself perfectly clear he would not contest the charge.*

SPINLOVE TO GRIGBLAY

Dear Sirs, 30/6/26.

I did *not* say I had "arranged with Hoochkoft." My words are "Hoochkoft has now agreed to pick out the soft bright-red bricks," which, in view of previous letters on the subject, is a perfectly clear statement that no charge for picking was to be made, and I therefore cannot pass the account.

It is for you to inform Messrs. Hoochkoft of my decision and require them to refund. If I had said *I* had agreed for Hoochkoft to pick, it would have been a different matter, but I did not say so.

Yours faithfully,

It is a pity Spinlove did not shorten his letter by the length of its last sentence. As usual, in his doubt of himself and anxiety to be plausible, he says too much. Although he omitted to state in so many words that the picking was being done free of charge, Grigblay was, nevertheless, at fault in assuming the contrary; but Spinlove surrenders all possibility of making good his claim by gratuitously admitting that its justice depends on niceties of syntax the exploration of which causes—in me at least—sensations of vertigo. He also reveals that he is now out of his depth in his own muddle. The only ground on which Grigblay can ask a refund from Hoochkoft is that he misunderstood the architect's instructions when he paid; and the only reply which he can expect from Hoochkoft is—"We are sorry for you."

HOOCHKOFT TO SPINLOVE

Dear Sir, 2/7/26.

We were naturally astonished to receive your letter. After our definite refusal to supply picked at the price we quoted for unpicked, and your acceptance of our special rate to you of 175s., we are surprised you should consider it worth while to press this unreasonable claim against us after we have reminded you of the facts which we supposed you had overlooked, and must now consider the matter at an end so far as we are concerned.

Yours faithfully,

SPINLOVE TO HOOCHKOFT

Dear Sir, 3/7/26.

It is perfectly clear from the correspondence that facings were to be picked free of cost. You had no right to make the extra charge and Mr. Grigblay had no authority to pay it. As I shall not pass the account, it will be for you and Mr. Grigblay to settle it between you. You will hear from him.

Yours faithfully,

As has been said, there is nothing for Hoochkoft and Grigblay to settle between them. Spinlove, as agent for Brash, has either to force Hoochkoft to refund, on the ground that the charge should not have been made; or compel Grigblay to stand the loss on the ground that he had no authority to pay it. Failing that, Brash will have to meet the charge, unless he can prove it to be set up by the culpable negligence of his architect; in which case Spinlove would be liable to Brash for the amount.

HOOCHKOFT TO SPINLOVE

Dear Sir, 5/7/26.

We certainly have no intention of settling with Mr. Grigblay. So far as we are concerned the matter was long ago settled, and the only reason we corresponded with you was to explain your mistake. In view of your hostile attitude the matter is now closed.

Yours faithfully,

Hoochkoft evidently realize that they cannot persuade Spinlove they have not cheated him, nor hope to retain his esteemed favours.

GRIGBLAY TO SPINLOVE

Dear Sir, 5/7/26.

We can only repeat that we acted in accordance with your instructions in paying Messrs. Hoochkoft's charge for picked. As you have kept this matter in your hands throughout, we are not in a position to approach Messrs. Hoochkoft further *re* same. We have already told them your views on the matter.

Yours faithfully.

This letter, and Hoochkoft's, seem to signalize the final discomfiture of Mr. James Spinlove, A.R.I.B.A.

BRASH TO SPINLOVE

My dear Mr. Spinlove, 5/7/26.

I duly received your communication anent certificate, which document has been transmitted to me by Mr. Grigblay, and have been for some days contemplating inditing a communication to intimate my apprehensions that, in disbursing this very substantial sum, I shall appear to acknowledge the justice of claims which still await eventual elucidation when the detailed account is produced.

Your own attitude in this matter continues to impress me as being—if you will permit me to say so—extremely inexplicable. It must be obvious to you—although natural reserve makes me hesitate to say so—that I am a gentleman of not altogether negligible weight and importance in the business world who has attained a certain degree of social eminence and monetary affluence; and I assume that young gentlemen embarking upon professional careers with ambitions for success in their elective sphere are aware of the directions in which advantageous opportunities are to be anticipated and final prosperity likely to eventuate; to be precise, they comprehend—if you will excuse a vernacular colloquialism—upon which side their bread is buttered.

You have on several occasions taken the opportunity to remind me that the contract allows you a very wide and free discretion in deciding points in dispute, and I am naturally surprised to notice that you consistently favour Mr. Grigblay's claims against me and urge—with considerable stiffness, you must permit me to remark—*his* views of contentious matters in preference to supporting *my* interests. I feel it my duty to a much younger gentleman who has not, I apprehend, enjoyed the opportunity of such wide experience of affairs as has been my providential good fortune, to intimate the illogical aspect of the position in which you put yourself, and the difficulty in which you place me. I meet one of my wealthy and influential acquaintances—let us suppose—who naturally refers to my building operations and asks: "How do you find your young architect, does he safeguard your interests, does he protect you from the rapacity of

builders and contractors, is he a pliable and conciliatory gentleman?" How am I to answer that question in such a way as to encourage my influential friend's confidence in your professional capacities while you keep me in serious doubts of the matter? This you will, I apprehend, regard as a subject deserving your thoughtful consideration, as it is obviously apparent that it has escaped your attention.

Believe me, my dear Mr. Spinlove,
Yours very sincerely,

The greasy affability of Brash's subscription—which so far as I can recall is without precedent—is evidently employed to give a gloss of magnanimity to a dirty purpose. The thing, however, is not quite what one would have expected of old Brash, and it is only fair to put the best interpretation upon it that circumstances allow. If Spinlove made clear to Brash that under the terms of a building contract the architect is constituted final arbiter of technical matters, and that his discretion is also decisive in many that are not, then it is perfidy of a detestable kind for Brash to use the power his years and station give him to subvert the honesty of the younger man; but we do not know that Spinlove made this clear to Brash, and the spectacle we have had of Brash's many flounderings makes it quite possible that he did not know what the obligations of an architect are. Brash may, perhaps, have regarded Spinlove as his agent in the ordinary sense of one whose services are remunerated by a commission, and did not understand that his architect's obligations to the builder were as binding, in fact and in honour, as his obligations to his client. At the same time, it is clear that Brash was aware of meanness in tempting Spinlove to favour his interests.

[NEXT WEEK, XI—SPINLOVE SCORES AGAIN]

QUESTIONS THAT ARISE

Proportion of Cornice

A. J. J. writes: "*Is there any fixed proportion which governs the depth of a cornice crowning a building without an Order, and how is it arrived at? I have tried building up an imaginary column the height of the building and making the fornice proportionate, but this is not satisfactory.*"

In the Italian, and particularly the Florentine palaces, the proportion does not seem to have been definitely fixed by any rule before Palladio, as the following examples show:

	Cornice; Of total height.
Strozzi Palace, Florence	$\frac{2}{29}$
Pandolfini ,, ,,	$\frac{2}{29}$
Gondi ,, ,,	$\frac{2}{32}$
Farnese Palace, Rome	$\frac{2}{34}$
Palladio rule was to make it	$\frac{2}{29}$

But several modern examples are deeper, and a good rule is to divide the total height of the building into 25 parts and allow 2 parts for the cornice. L. E. W.

Jointless Flooring

J. E. M. writes: "*What is the exact composition of a jointless floor, and how should this be laid? There are many patent varieties, but I presume the base of them is the same.*"

These floors are all based on a magnesian composition and consist of ground magnesite (MgO) and magnesium chloride (MgCl). When the former is moistened with a solution of the latter, it forms a rock-like mass. For the formation of a floor this mixture is added to an aggregate which gives resilience, quietness and warmth. The most usual aggregates are sawdust, ground silica and white talc—these aggregates must be very fine powders; the finest sand used for a cement and sand floor would be the coarsest that could be used for a magnesian.

When magnesian flooring is laid on concrete, the surface should be left rough to obtain better adhesion. On wooden floors the boarding should first be covered with galvanized wire netting, fixed to the boarding with galvanized iron nails.

The preparation should be laid in two operations, each $\frac{3}{16}$ in. thick, and then left from one to two days to dry and harden. A. B.

Mildew on Walls

E. Q. writes: "*When carrying out alterations and repairs to a cottage, I had the walls clearcolled and distempered. During the recent bad weather the walls became covered with a greenish mildew. They had previously been whitewashed and no trouble with mildew had been experienced, although during certain periods my client admits that the walling has been slightly damp. I have examined the stonework externally, but this is in perfect condition. Is it a fact that fungus does not occur with limewashed walls?*"

Mildew is a fungoid growth and therefore needs decaying matter to form on. The wall is no doubt slightly damp, and probably always has been, but in whitewash there was nothing for the fungus to thrive on.

On papered walls the mildew grows in the decaying paste, and it will do the same in the decomposing glue size of some distempers or in any organic matter.

I have found that it is no use putting even a waterproof backing paper on these walls, as damp may rise from the floor.

I would suggest using the whitewash, which has done service to this cottage in the past. D. E. A.

Boundary Line

T. W. writes: "*A portion of my property is bounded by a hedge, with a ditch along part only. How is the boundary defined?*"

In the case of hedge only, the boundary line is usually considered to be midway of the hedge, unless ascertained acts of ownership prove it to be otherwise.

With a ditch, it is the general rule that the hedge belongs to the owner of the field on whose side there is the ditch. The decision of the courts has been that no man making a ditch can cut into his neighbour's soil, but usually he cuts it to the very extremity of his own land, being bound, of course, to throw up on his own land the soil he digs, in which the hedge is planted.

The portion of hedge without a ditch may have originally had a ditch which in course of time has been filled in, but if looked for carefully, or trial holes made, some definite signs of the earlier existence of a ditch may be established.

No definite width for the ditch can be claimed, although if no other evidence is available to the contrary, it is generally considered that four feet is the normal width. A. T. A.

Thatched Buildings

H. J. writes: "*A client of mine has recently moved into an old cottage and applied to his insurance company for a fire policy. He has been informed by the company that the premium would be 5s. per cent. in place of 1s. 6d. per cent., as the cottage has a thatched roof. Can I do anything to treat the thatch with chemicals and render it sufficiently fireproof, so that my client can approach the insurance company and perhaps obtain better results?*"

Insurance companies are shy of thatched buildings, and undoubtedly the risk of fire is greater than for those roofed with tiles or slates.

However, one sees a large number of thatched roof cottages that have stood for two and three hundred years, and it would be interesting to know the proportion of fires that occur in roofs of this character to those occurring with tiles, slates, etc.

It is a fact that new thatch is more inflammable than old. Your correspondent might have the roof sprayed with the following mixture:

Sulphate of ammonia	4 lb.
Carbonate of ammonia	2 lb.
Borax	1 lb.
Boracic acid	1 lb.
Alum	2 lb.
Water	6 hhds.

This will render the thatch proof against sparks, but I do not think that it will convince the insurance company. R. A. C.

CHELMSFORD PUBLIC LIBRARY AND MUSEUM COMPETITION

WINNING DESIGN : BY R. A. CORDINGLEY

THIS competition was promoted by the Chelmsford Corporation to provide a public library and museum. In the conditions it was stated that the building was to be two or three stories high and to contain a basement. The cost was not to exceed £25,000. The ground floor was to be devoted to the public library. There were to be a general reading-room for newspapers and magazines, to accommodate sixty readers; a juvenile library for 5,000 books and seating twenty children; and a reference library for 8,000 volumes and twenty readers at single tables. In the open stack-room there were to be provided 500 ft. run of stacking around the walls and double-detached blocks, placed 7 ft. 6 ins. centre to centre, with a space 4 ft. wide around the ends. At the entrance to the stack-room was to be a staff enclosure for two registering clerks. This would have "In" and "Out" gangways on either side and be placed in such a position as to enable the reading room to be overlooked. It was requested that a spacious hall should be provided, with a good staircase to the first floor. Other accommodation required included a librarian's office to be usable as a committee room, a staff common room and a clerks' office.

THE AWARD
(H. V. Lanchester, Assessor)

First: R. A. Cordingley, Durham.
Second (£100): Gregory & Robinson, Nottingham.
Third (£50 each): O. F. Martin Smith, London; and Frederic E. Towndrow, London.
Commended: Wallace Marchment; W. Simming and J. H. M. Bates; and W. J. Baker.

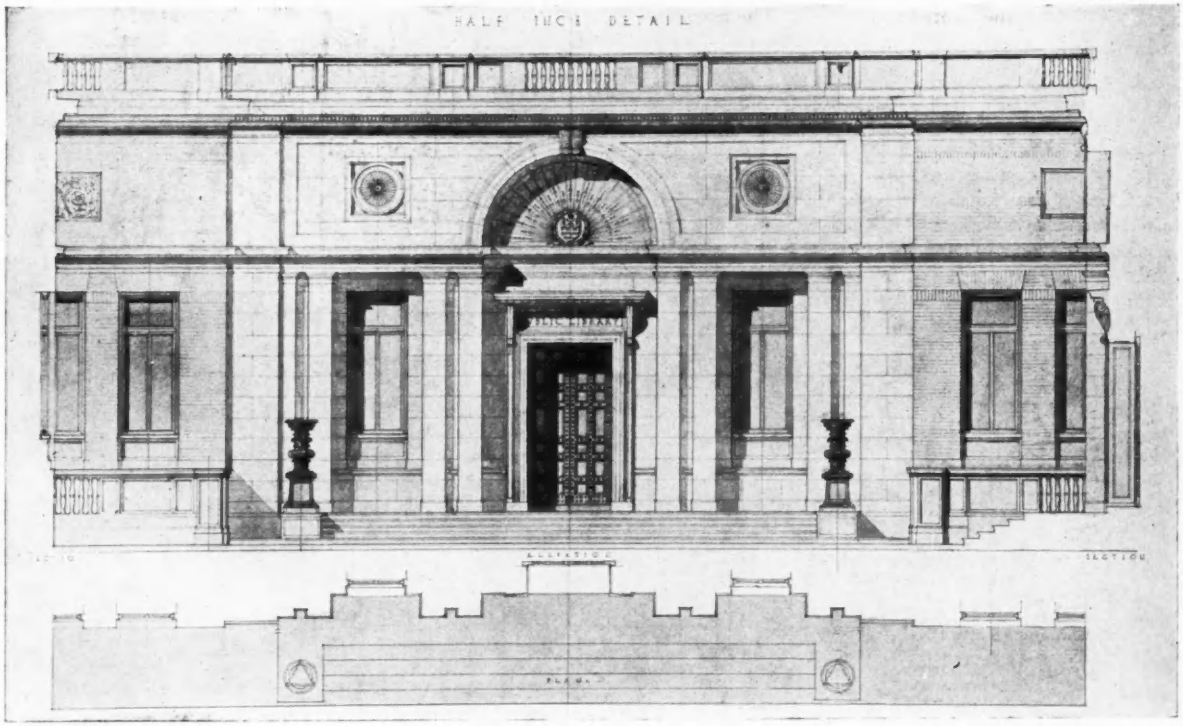
On the first floor the museum, it was suggested, should occupy the major portion of the building, and was to consist of four or five galleries.

The caretaker's flat was to be placed on the first or second floor and was to comprise living-room, three bedrooms, scullery, larder and bathroom. It was to be provided with a subsidiary staircase. In the basement was to be the strong-room, a heating chamber, general storage and a store room, with a lift to the first floor.

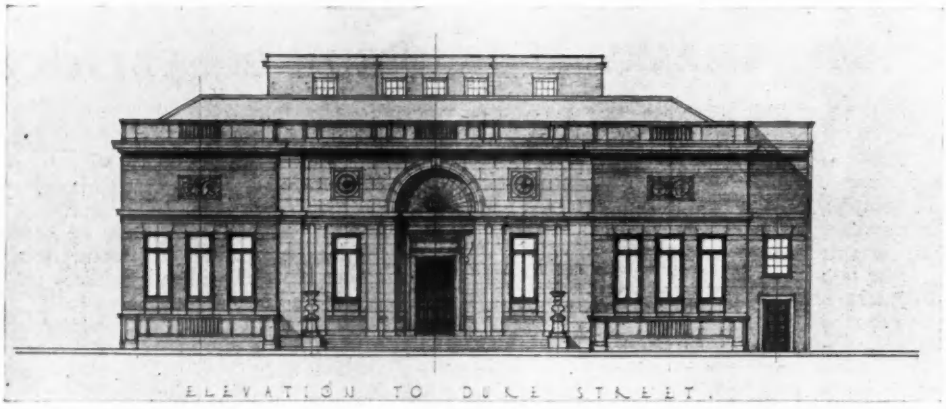
In Chelmsford the buildings are mainly of the eighteenth and nineteenth centuries, and it was stipulated that the building should harmonize with its neighbours. It was suggested that the material for the exterior should be brick, with possibly a limited amount of stone dressings.

The competitors numbered 168.

Mr. H. V. Lanchester, the assessor, in his report, says that the winning design complies with the conditions and could be carried out at approximately the cost indicated. The planning is good, and the treatment dignified. The stack-room, while adequate, is rather smaller than indicated in the instructions, owing to the area allotted to the spacious entrance hall, which is a feature in this design.

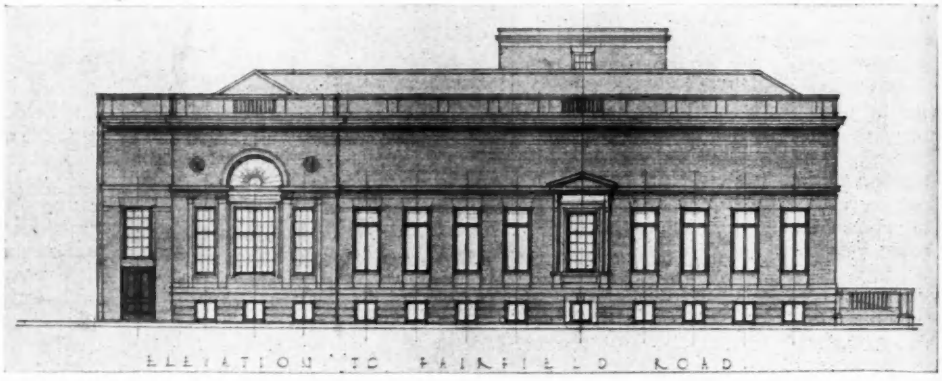


A reproduction from the ½-in. detail drawing of the main entrance. The façades, as suggested in the conditions of the competition, are intended to be erected in brick and stone. The cost of the buildings was not to exceed £25,000.

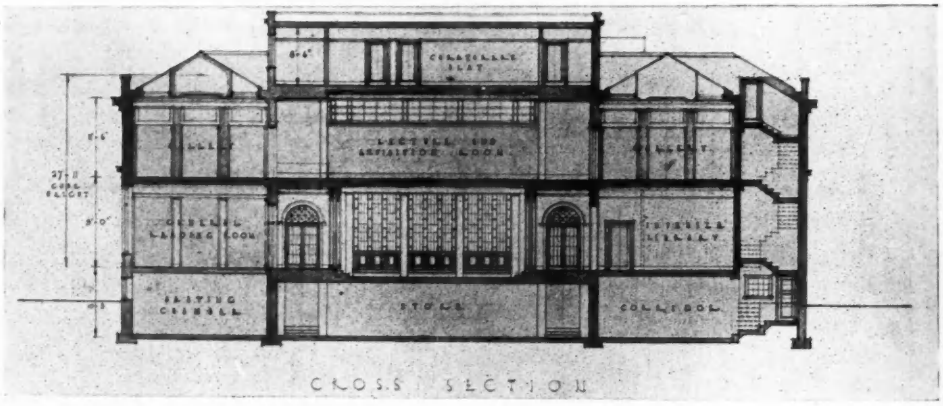


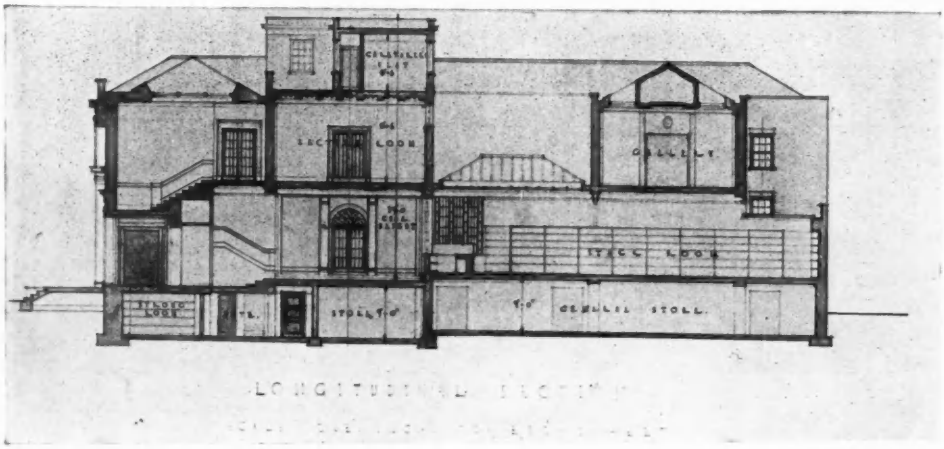
The main entrance is in Duke Street. It is approached by a flight of five steps and leads into a central hall, from which, as will be seen from the ground floor plan on the facing page, the library accommodation is entered.

The elevation to Fairfield Road is on the left of the main Duke Street front. The ground floor is devoted entirely to the public library and the first to the museum.



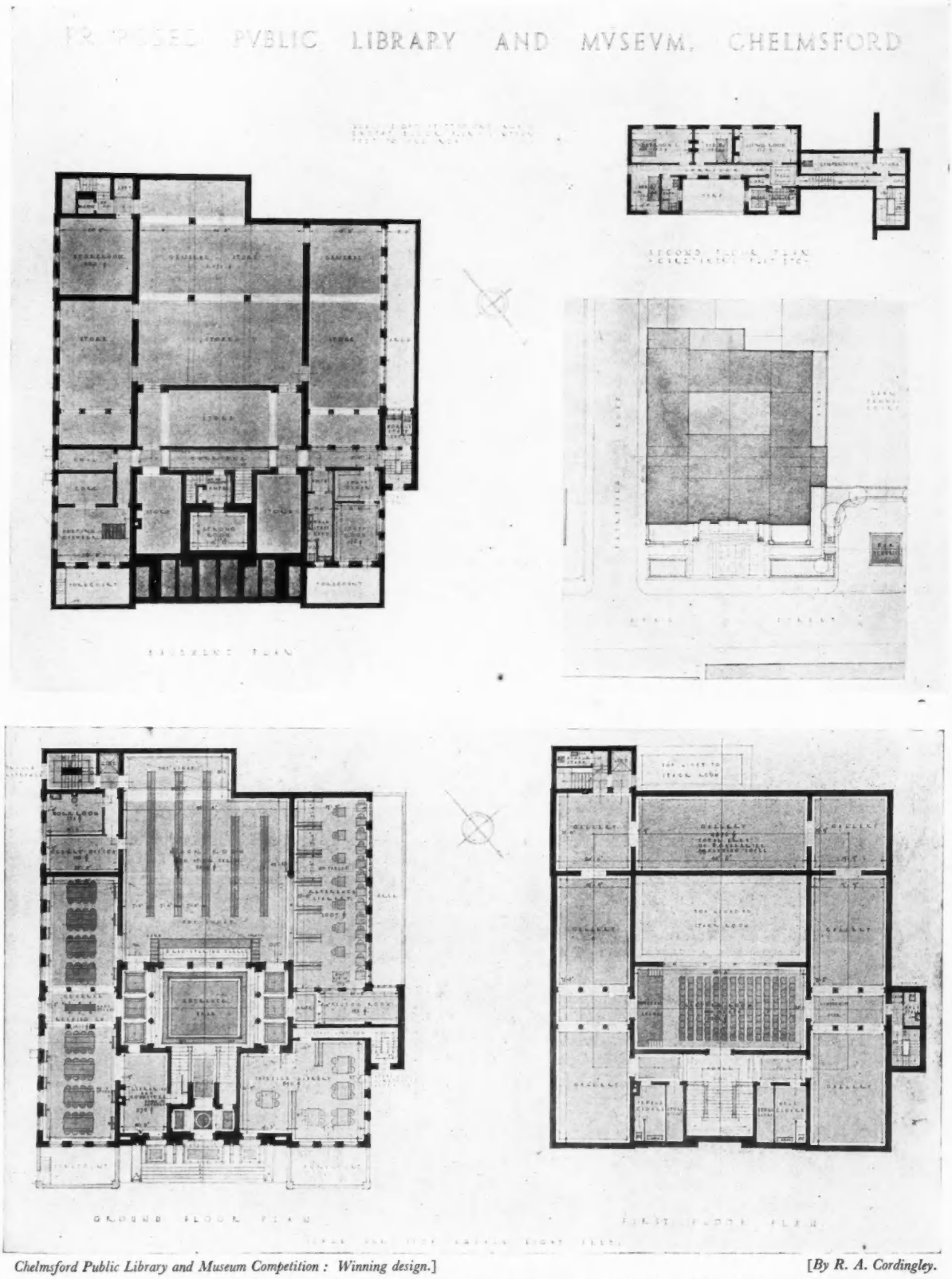
Cross section. The position occupied by the caretaker's flat on the second floor enables good unobstructed top lighting to be obtained for the museum galleries on the floor below.





A longitudinal section from the main Duke Street front, on the left, to the rear elevation. The stack room is for the most part top lit, secondary lighting being obtained from glazed screens in its walls.

Chelmsford Public Library and Museum Competition: Winning design.] [*By R. A. Cordingley.*



Chelmsford Public Library and Museum Competition : Winning design.] *[By R. A. Cordingley.*

The ground floor contains reference and juvenile libraries, a general reading-room, stack room, filing room and clerk's office. The librarian's and committee room is planned near the main entrance, enabling basement stairs to be placed beneath the main staircase. On the first floor is a museum, comprising five galleries, and a lecture room, with stage. The galleries have a maximum wall area to accommodate pictures or cases of birds. Independent staircases are provided for the trades and for the staff and the caretaker.

THE SKETCH CLUB

EIGHTH SESSION



Almshouses at Alkmaar, Holland.

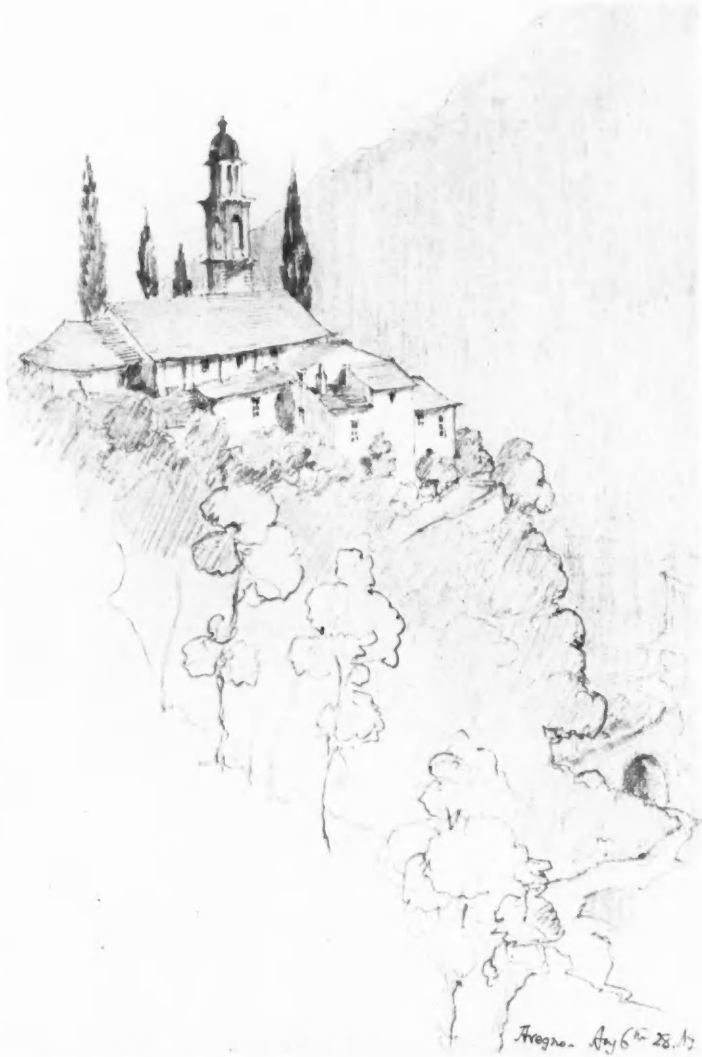
By F. L. Jackman (Pencil).



The Hospital Church, Stuttgart, Germany.

By Thomas Mitchell (Pencil).

The Baroque of Austria, Bohemia and Southern Germany is flavoured strongly with a common ingredient — fantastically shaped spires. This one is attached to a late Gothic Church (1471 — 1493).



At Avegno, three or four miles north-west of Locarno, at the head of Lake Maggiore, Switzerland.

By Maxwell Ayrton (Pencil).



Castle towers, the Estuary, Dartmouth.

By E. B. Musman (Pencil).

The Church of the Holy Ghost, Heidelberg.

By Thomas Mitchell (Pencil).

A bare quarter of a mile in Old Heidelberg market place separates the river Neckar and the abrupt slope to the castle: its courtyard is about level with the top of this spire—380 feet high.



ALL who have spent any length of time in a drawing office know the delightfully confident and assured



design appropriate and those who, like a well-known architect to whom it was shown, thank their lucky stars

Gothic Church (1471—1493).

Lake Maggiore, Switzerland.
By Maxwell Ayrton (Pencil).

spire—380 feet high.

ALL who have spent any length of time in a drawing office know the delightfully confident and assured manner in which the draughtsman will argue on a diversity of topics, however difficult and obscure. From just such an one was born the idea of "The Celestial City." This is the "explanation" I have *imposed* on the design:—Heaven and Hell are represented as being the same place and exist only as abstractions. (This meets both those who think the design appropriate and those who, like a well-known architect to whom it was shown, thank their lucky stars that they are certain of not going there).

Souls who enter this Heavenly Hell can, by taking thought, move anywhere on the horizontal plane or below, but they needs must *toil* to reach the upper terraces and the high places of the Celestial City. That is our fate; to be for ever toiling upwards.

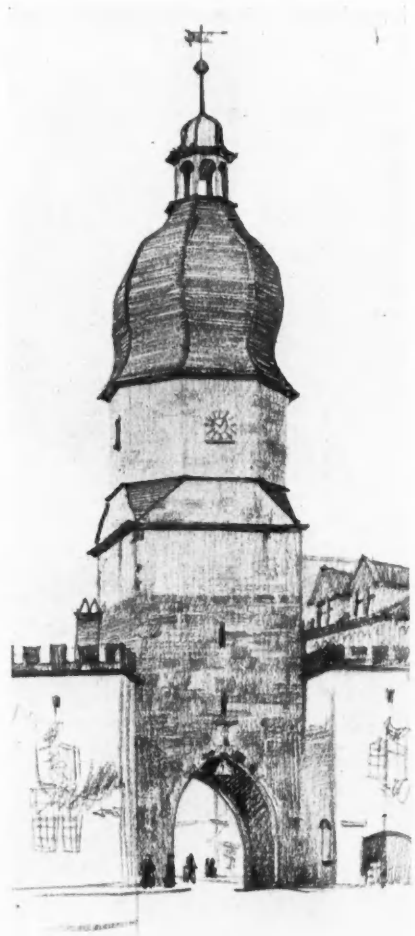
H. E. F.



Clock Tower surmounted by a metal belfry cage at Remoulins, near Nimes, France.
By E. B. Musman (Pen; toned paper).



The Celestial City: a Fantasy.
By Hubert E. Furse (Charcoal).



One of the old Town Gates of Coburg, Germany: the wall itself has long since gone.
By Thomas Mitchell (Pencil).

TOWERS and spires are landmarks almost as essential to the eye of the architect as of the sailor. By them, both know where they are, and it shall go hard with the architect at large but he will sketch them as his first impressions of a strange town. Here are some such by members of the Sketch Club.

The June Holiday Sketches Competition has been adjudged and the awards will be announced in the next issue of THE ARCHITECTS' JOURNAL. *Those for July and August are still open.* *(See the rules, etc., printed on page xlv.)*

IN PARLIAMENT

[BY OUR PARLIAMENTARY REPRESENTATIVE]

The Government's Slum Bill

DURING the Committee stage of the Housing Bill in the House of Lords few amendments were made. An interesting debate took place, however, on a proposal of Lord Banbury providing that full compensation, and not merely site value, should be given to owners of property compulsorily purchased which was in good order but which happened to be included in an area scheduled for rehousing.

The Bishop of Southwark said the amendment, if carried, would place serious difficulties in the way of slum clearance. The law dealing with compensation had been in operation since 1919. If the Bill were altered as the amendment proposed, the value of slum property would be instantly increased. The people who bought slum property knew what they were buying, and the country would be making a present to those property owners if the amendment were passed. He recognized that there were hard cases, but these could be met by giving local authorities greater discretionary powers.

Lord Jessel said it was common knowledge that the late Government, had they remained in office, would have amended the compensation clause. The effect of the clause as it stood was that local authorities were deterred from carrying out schemes of slum clearance.

Lord Parmoor said that the Government could not consider any proposal which would place an extremely heavy burden on local authorities and prevent them from pressing forward with slum clearance.

Eventually, the amendment was withdrawn, Lord Banbury reserving his right to bring it up at a later stage.

Lord Dynevor moved an amendment to provide that no compulsory purchase of land shall be authorized if it involves the destruction of or serious injury to the beauty of the landscape or the countryside. He explained that his object was to prevent local authorities from cutting down avenues or roads of trees in order to build houses if by so doing they would injure the beauty of the countryside. He was told that this point was partly dealt with in Clause 38; but he did not think that was really the case. That clause gave discretionary power to the Minister of Health, and it might happen that a future Minister of Health would not care for the beauty of the countryside. Local authorities should be prohibited from destroying the beauty of the landscape.

Lord Parmoor said that Clause 38 went a long way in the direction desired by Lord Dynevor. The Government could not accept the amendment, because its result would be that the question of natural amenities would be raised in every case of the proposed compulsory acquisition of land, and that would make the position of local authorities very difficult.

Lord Brentford suggested that, on Report, the Government might insert in Clause 38 the words "beauty of the landscape," and Lord Parmoor promised to consider that.

The amendment was withdrawn.

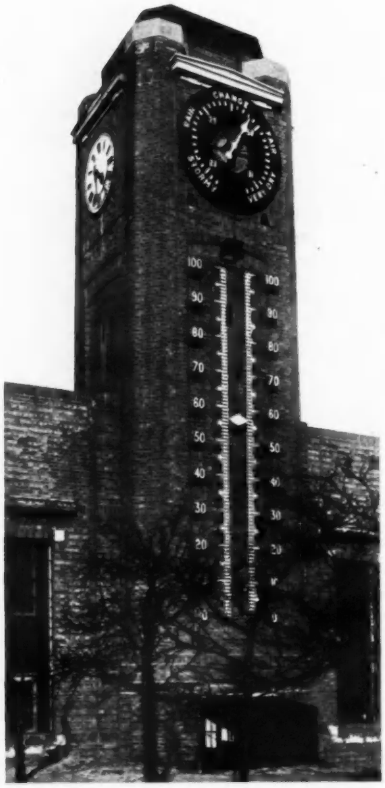
Slum-clearance Schemes

At question time in the House of Commons Mr. Day asked the Minister of Health whether he could state the number of buildings that had been acquired and demolished for slum-clearance schemes since April 1, 1925; how many new dwellings had been erected in connection with slum-clearance schemes over the same period; could he give an approximate estimate of the number of persons who had been rehoused in these new dwellings; and had any statistics been got out by his department of the number of persons who were still living in slum habitations.

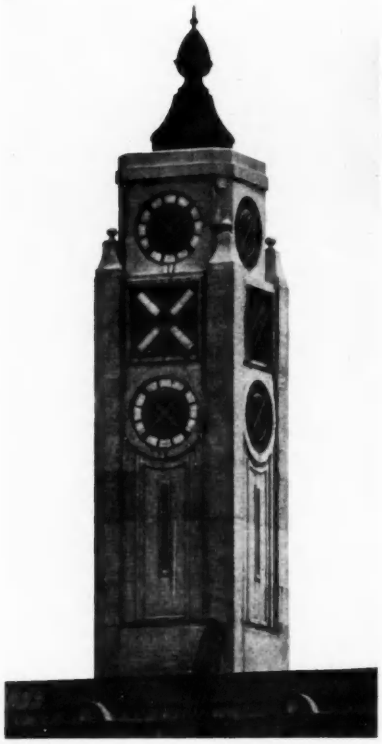
Mr. Greenwood said that the number of buildings acquired by local authorities in England and Wales since April 1, 1925, in connection with approved slum-clearance schemes was approximately 10,700, and the number demolished approximately 9,000. The number of new dwellings erected since the same date in connection with such schemes was rather more than 9,700, and it was estimated that some 48,000 persons occupied these new dwellings. Statistics on the point raised in the last part of the question were not available.

Housing Progress in England

Mr. Greenwood informed Mr. Simon that the number of houses completed in England and Wales under the Housing (Financial Provisions) Act, 1924, during the year ended September 30,



The chimney of the Cherry Blossom Factory, Chiswick. Designed by A. Alban H. Scott. In addition to its functional purpose, it serves as a clock tower, thermometer and barometer. The chimney, which is finished in sand-faced bricks, was camouflaged as much as possible to meet the wishes of the Ministry of Health and the Chiswick Urban District Council.



This tower, rising to a height of about 200 ft. from the Thames foreshore, near Blackfriars Bridge, surmounts the new wharf and distributing centre of Oxo, Ltd. The tower itself is 80 ft. high. The ornamental windows forming the letters OXO are, when the tower is illuminated from within, visible from a great distance. The architect was Albert Moore.

1927, was 97,316, and during the six months ended March 31, 1930, was 25,078.

Sir Kingsley Wood asked the Minister of Health if he would state the number of State-assisted houses completed under the Housing Act, 1924, for the quarter ended September 30, 1929, and the number completed for the last quarter for which figures were now available.

Mr. Greenwood said that the numbers were 17,730 and 11,351. The latter was the number of houses completed in the quarter ended June 30, 1930.

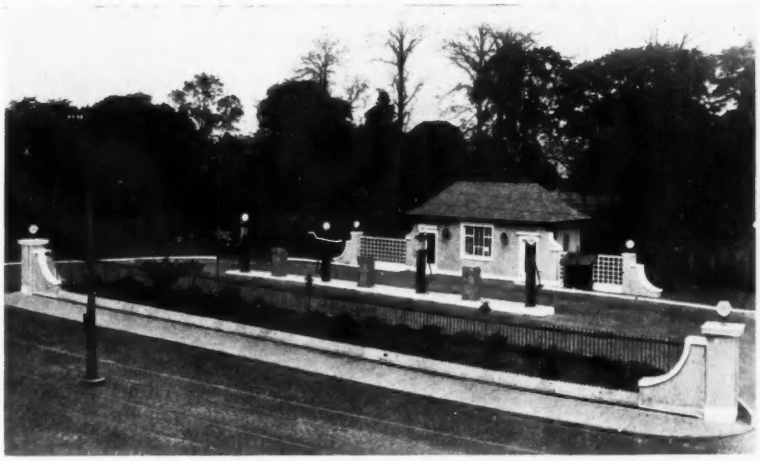
Housing Progress in Scotland

Mr. Johnston informed Mr. Marcus that the numbers of subsidy-aided houses completed and ready for occupation in Scotland in 1929 by local authorities and private enterprise respectively were 14,316 and 3,924. The number of houses erected without subsidy during that year was 1,275.

National Housing Survey

Mr. W. Taylor asked the Minister of Health if he would consider taking steps to institute a national housing survey throughout rural England, with a view to providing adequate cottage accommodation in every village at a rent the farm-worker could pay, and which would also relieve unemployment in the building trade.

Mr. Greenwood said that consideration had, from time to time, been given to the question of such a survey, but he did not think the results would be worth the time and labour involved. Mr. Taylor was no doubt aware of the special provision made for rural housing in the Housing (No. 2) Bill now before Parliament. He hoped that this Bill would soon be on the Statute Book and he should not fail to urge the local authorities concerned to take the utmost possible advantage of it.



Petrol-filling station, Hamilton, Lanarkshire. Designed by Alex. Cullen. The small office building which forms the central feature has white cement walls and a red tiled roof. In the recent competition promoted in connection with the design of petrol-filling stations, this station was awarded first place for Scotland.

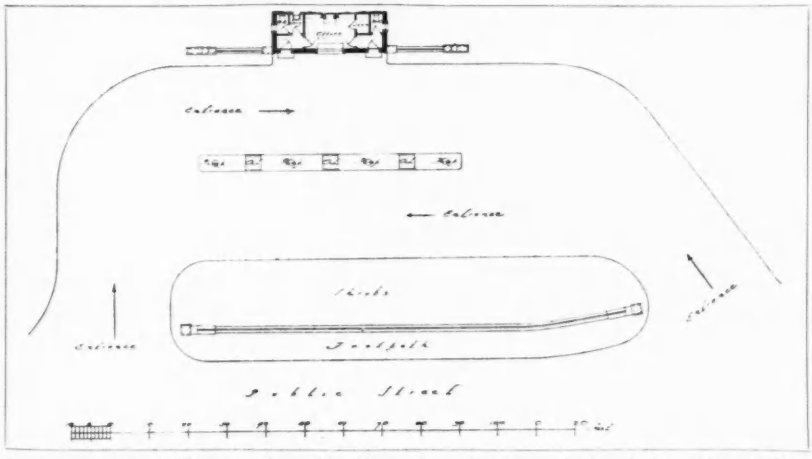
Protection of Ancient Monuments

Mr. Lansbury, the First Commissioner of Works, informed Mr. Lewis that he had under preparation a Bill to give his department adequate powers to protect the surroundings of ancient monuments, including Hadrian's Wall.

Administration of the Housing Acts

Mr. Simon asked the Prime Minister whether, having regard on the one hand to the magnitude and complexity of the housing problem, and on the other to the burden of other work which devolves on the Ministry of Health, he would consider the advisability of transferring the duty of administering the Housing Acts either to a National Housing Council or to the Minister of Public Works.

Mr. MacDonald said he was advised that as housing was primarily a function of the local authorities it would not add to efficient administration if the central responsibility for it were divorced from the Ministry of Health.



Lay-out of petrol-filling station, Hamilton, Lanarkshire. Designed by Alex. Cullen. The site faces the main thoroughfare of the town and abuts on the wooded grounds of Hamilton Palace. A considerable depth, as well as frontage, was available, allowing the station to be set well back from the street. Wide access roadways allow incoming and outgoing traffic an uninterrupted flow.

SOCIETIES AND INSTITUTIONS

R.I.B.A. COUNCIL MEETING

FOLLOWING are some notes from the minutes of a recent meeting of the R.I.B.A. Council :

British Architects' Conference, Norwich : The Council passed a cordial vote of thanks to the members of the Norfolk and Norwich Association of Architects and all who contributed to the success of the Conference.

R.I.B.A. Examination Overseas : The following result was reported to the Council :

Final Examination, Part I (Design), Singapore, December, 1929.

Examined.	Passed.	Relegated.
1	1	—

Exemption from the R.I.B.A. Final Examination except that portion relating to Professional Practice : On the recommendation of the Board it was decided, subject to proper safeguards, that in future schools recognized for exemption from the R.I.B.A. Final Examination be allowed to hold the Examination in Professional Practice with other examinations in the final school year, instead of at the R.I.B.A.

The School of Architecture of the University of Cape Town : A report on the School of Architecture of the University of Cape Town was considered and, on the recommendation of the Board, it was decided, subject to

reconsideration in five years' time, that: (1) The three years' full-time day course be recognized for exemption from the R.I.B.A. Intermediate Examination; (2) the five years' Degree Course and Diploma Course be recognized for exemption from the R.I.B.A. Final Examination except that portion relating to Professional Practice; (3) the Examination in Professional Practice at the end of the fifth year of the school course be accepted as the R.I.B.A. Examination in Professional Practice provided that the two R.I.B.A. External Examiners shall act as Examiners in this subject; (4) non-university students who pass the university examinations be accepted for candidature as Associates of the R.I.B.A. on the recommendation of the R.I.B.A. Local Board of Examiners after reviewing their work; (5) external students who possess certificates in respect of the diploma examinations in architecture of either the University of the Witwatersrand or of the University of Cape Town be granted exemption from the R.I.B.A. Intermediate Examination; (6) with a view to ensuring some relaxation of the conditions in favour of students who suddenly find themselves confronted with a new set of circumstances, the Senate of the University of Cape Town should allow students accepted as Probationers R.I.B.A. to sit for the external examination for which the two Universities jointly are the examining body for the Union, even if the necessary entrance qualification is lacking, provided the Central Council of the Institute of South African Architects agree.

The School of Architecture, Birmingham: On the recommendation of the Board it was decided that the recognition of the three years' full-time day course for exemption from the R.I.B.A. Intermediate Examination be continued, and that the five years' course be recognized for exemption from the R.I.B.A. Final Examination except that portion relating to Professional Practice.

The School of Architecture, the Polytechnic, Regent Street, London: On the recommendation of the Board, it was decided that the three years' full-time day course be recognized for exemption from the R.I.B.A. Intermediate Examination.

Libraries of Schools of Architecture: The Board reported that the grant of £50 provided for the Libraries of Schools of Architecture had been allocated as follows: School of Architecture, Municipal School of Arts and Crafts, Southend-on-Sea, £20; School of Architecture, Robert Gordon's Colleges, Aberdeen, £20; School of Architecture, Armstrong College, Newcastle-on-Tyne, £10.

The R.I.B.A. and Technical Colleges and Art Schools with Arrangements for the Instruction of Intending Architects: It was decided, with a view to improving the standard of architectural education throughout the country, that: (1) A list be published in the *R.I.B.A. Kalendar* of technical colleges and art schools with arrangements for the instruction of intending architects; (2) the colleges and schools included in the list be sent from time to time all R.I.B.A. educational publications, notices, etc., and copies of each issue of the *R.I.B.A. Journal*.

R.I.B.A. Final and Special Examinations: The Council, on the recommendation of the Board, has decided to discontinue from December 31, 1930, the acceptance of a paper on the Outline of the History and Practice of Town Planning in the R.I.B.A. Final and Special Examinations, as an alternative to either Iron and Steel Construction and Reinforced Concrete or Hygiene.

PRIZES

The Alfred Bossom Travelling Studentship, 1929: The Board reported that they had approved the report on "Country Clubs" prepared on his tour by Mr. Frank Scarlett, A.R.I.B.A., Alfred Bossom Travelling Student, 1929.

The Godwin and Wimperis Bursary, 1925: The Board reported that they had approved the report on "The Layout of some Rhine Towns" prepared on his tour by Mr. L. H. Bucknell, A.R.I.B.A., Godwin and Wimperis Bursar, 1925.

The Athens Bursary, 1930: It was reported that the President, in consultation with the Officers of the Board, had approved the report on his tour submitted by Mr. G. D. Gordon Hake, F.R.I.B.A., Athens Bursar, 1930.

Architecture in Secondary Schools: It was decided that further steps be taken with a view to papers on the methods of interesting boys and girls in schools in architecture and kindred subjects being read at meetings of the Headmasters' Conference, the Incorporated Association of Headmasters and the Association of Headmistresses, and at meetings of the branches of these bodies.

The Architectural Association: It was decided to renew the annual grant of £100 to the Architectural Association for the year 1930.

Royal West of England Academy School of Architecture: It was decided to make a grant of £50 to the Royal West of England Academy School of Architecture for the current year.

Completion of the Mosaics on the Staircase of the National Gallery: It was decided to make a donation of £5 5s. towards the fund for the completion of the mosaics on the staircase of the National Gallery.

The British School of Archæology in Iraq: It was decided to make a donation of £5 5s. to the British School of Archæology in Iraq.

The Building Industry Council of Review: It was decided to make a donation of £25 towards the cost of the work of the Building Industry Council of Review.

The Council of the British School at Rome: Mr. Henry M. Fletcher (Vice-President) was reappointed for one



The students at the School of Architecture, Robert Gordon's Colleges, Aberdeen, recently entertained the assessors and staff to dinner. The above caricatures of some of the students, drawn by J. C. Todd, appeared on the outer page of the menu.

year as one of the two representatives of the Council of the R.I.B.A. on the Council of the British School at Rome.

British Waterworks Association: Standing Committee on Water Regulations: Mr. H. D. Searles-Wood, F.R.I.B.A., and Lt.-Col. P. A. Hopkins, L.R.I.B.A., were reappointed to represent the R.I.B.A. on the Standing Committee on Water Regulations of the British Waterworks Association.

The British Engineering Standards Association and Proposed Standard Specification for Gypsum Plaster: Messrs. W. E. Vernon Crompton, F.R.I.B.A., Alan E. Munby, F.R.I.B.A., and A. H. Barnes, L.R.I.B.A., were appointed to represent the R.I.B.A. on the Technical Committee which has been set up by the B.E.S.A. to prepare a standard specification for gypsum plaster.

Revision of the London Building Acts: On the recommendation of the R.I.B.A. London Building Acts Committee it was decided to call a conference of representatives of the following bodies with a view to co-ordinating the efforts now being made to hasten the revision of the London Building Acts: The Building Industry Council of Review, the London Employers' Association, the British Steelwork Association, the Incorporated Association of Retail Distributors.

Resignations: The following resignations were accepted with regret: Messrs. Raymond Bush, F.R.I.B.A.; Charles Albert Battie, L.R.I.B.A.

Applications for Transfer to Retired Fellowship: The following members were transferred to the Retired Fellowship: Messrs. O. C. Hills (A. 1896, F. 1905); F. Peck (A. 1898, F. 1915).

Election of Students: The following probationers were elected as students of the R.I.B.A.:

Abbott, D. N. (Architectural Association).
Ashley-Smith, E. T. (Intermediate Exam.).
Belsey, A. J. G. do.
Billington, P. do.
Bowden, G. E. (Architectural Association).
Bradford, W. N. (Intermediate Examination).
Brown, A. do.
Brown, C. do.
Brown, L. A. do.
Brown, V. do.
Burles, D. R. (Architectural Association).
Carter, F. H. (Intermediate Examination).
Chantrey, G. H. B. do.
Chapman, E. B. do.
Church, A. G. do.
Clayton, T. H. do.
Coker, W. E. G. do.
Cook, J. H. do.
Cortis, H. W. do.
Davies, E. L. W. (University of London).
Davis, C. H. R. (Intermediate Examination).
Deleuse, J. E. do.
Denbigh, G. D. do.
Elgey, C. do
Fairweather, J M. do.
Farnsworth, J. E. do.
Fleming, D. E. do.
Fox, C. F. do.
Goffey, A. E. do.
Goodworth, C. E. (Southend School of Arts and Crafts).
Gott, A. F. E. (Intermediate Examination).
Grant, F. C. G. (Architectural Association).
Gratrix, H. H. (Intermediate Examination).
Hardwick, J. do.
Hey, J. A. do.
Huddy, G. V. do.
Hunt, W. J. do.
Ind, L. C. do.
Israel, L. do.
Kemp, R. C. do.
Kilner, L. do.
Kirk, S. F. do.
Lang, R. B. do.
Law, C. do.
Lawton, E. A. do.
Light, E. J. G. do.
Lind, H. (Edinburgh College of Art).
Lindy, K. J. (Intermediate Examination).
Little, R. do.
Lowe, G. C. do.
Marsden, W. do.
Maskell, S. J. do.
Meldon, A. P. (University of Liverpool).
Moncrieff, H. (Intermediate Examination).
Munro, C. do.
Nicklin, N. C. do.
Normington, H. A. do.
Page, R. J. do.
Pearce, A. do.
Peat, J. T. W. do.
Peers, F. W. do.
Pilkington, T. do.
Price, P. J. do.
Priestman, H. D. do.
Read, B. J. (Architectural Association).
Read, R. T. (Intermediate Examination).
Reece, N. L. do.
Reyner, F. B. do.
Reynish, R. L. do.
Riddell, J. R. (Robert Gordon's Colleges, Aberdeen).
Risbridger, H. J. (Intermediate Examination).
Robb, G. do.
Rose, C. A. (Robert Gordon's Colleges, Aberdeen).
Rose, K. (Intermediate Examination).
Runnicles, C. G. do.
Samuel, G. H. (Architectural Association).
Senior, D. (Intermediate Examination).
Sherwin, A. do.
Simms, A. E. H. do.
Smith, J. E. do.
Spivey, C. A. do.
Sternfeldt, S. M. B. (Intermediate Exam.).
Stott, J. P. do.
Tee, R. G. do.
Thorpe, J. L. do.
Turner, F. J. W. do.
Vardy, J. D. do.
Vaux, E. H. do.
Watkinson, P. G. do.
Wheatley, N. do.
Wilkinson, A. do.
Williams, I. M. do.

MEMBERSHIP OF THE R.I.B.A.

The revised bylaws of the R.I.B.A. have received the approval of H.M. Privy Council, and applications may now be sent in for membership of the R.I.B.A. in the Licentiate Class. Full information obtainable on application to the Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

BARTLETT SCHOOL OF ARCHITECTURE

The following further award has been made at the Bartlett School of Architecture, University College, London. Prize for design in reinforced concrete: J. K. M. Sanderson.

BRISTOL SCHOOL OF ARCHITECTURE

The annual exhibition and presentation of prizes was held recently at the Bristol School of Architecture. Mr. W. Stenner, F.R.I.B.A., President of the Bristol Society of Architects, presided.

Mr. G. D. Gordon Hake, F.R.I.B.A., the headmaster, reported that the membership of the school had increased and now numbered forty-two; half of the students came from places outside Bristol, and even from Egypt. If, he said, there were an increase in the number of students, the question of accommodation would become acute. There had been additions to the staff, and it would be further augmented next session.

Dr. Ludford Freeman, Director of Education for Bristol, who presented the prizes, said it was anticipated that the school would soon secure the standing necessary so that students might take the full certificate of the R.I.B.A.

The following awards were made: Dame Janet Stancomb Wills travelling studentship (value £25), and the Savoury design medal, Mark Hartland Thomas; Mrs. Yda Richardson's bursary for the study of town planning, D. A. Thuell; R. W. A. Silver medal and Bristol Society's prize, P. K. Pope; R.W.A. bronze medal and Bristol Society's prize, W. R. Stenner; Architectural Association design prize, A. R. Taylor; Eustace Button measured drawing prize, P. K. Pope, with A. D. Kirby and T. H. Burrough highly commended; headmaster's prize, W. J. L. James. Certificates were awarded to Mark Hartland Thomas, Pauline Hartland Thomas, C. W. A. Ingles, D. A. Thuell and A. D. Waller.

The Traffic Problem

The Special Committee on Traffic of the London County Council, says *The Times*, has for some time had under consideration questions arising from requests by the Commissioner of Police that authority should be sought requiring the submission to him of plans of large buildings, such as retail stores and places of public resort, so that the layout of buildings might be examined in the light of traffic considerations.

In a report which was put before the Council yesterday the committee say that the erection of buildings to which the public resort in large numbers undoubtedly gives rise to considerable difficulties in large cities.

The committee advise that powers should be sought to enable plans to be examined from the traffic point of view and to empower the Council to impose requirements in respect of the provision of facilities for dealing with the vehicular traffic likely to be attracted to new buildings of the character mentioned. If the powers are conferred it is indicated that the Council will lay down the procedure to be followed, but the committee imagine

that before imposing requirements the Council would in all cases consult the Minister of Transport, so that the views of the London and Home Counties Traffic Advisory Committee might be obtained.

OBITUARY

JOHN A. CHESTON : 1889–1930

We regret to record the death of Mr. John Allford Cheston, F.R.I.B.A., surveyor to the Bethlem and Bridewell Royal Hospitals, at the age of forty-one.

He was the son of the late Mr. Horace Cheston, F.R.I.B.A., to whose practice he succeeded. He was architect, in association with Mr. C. E. Elcock, F.R.I.B.A., for the new Bethlem Hospital, Monks Orchard, Beckenham, opened by H.M. the Queen early this month.

During the war Mr. Cheston served in the H.A.C., the London Regiment, and the 24th Royal Fusiliers, and was a recipient of the Military Cross.

TRADE NOTES

Delegates from twenty countries attended the Conference of Holophane overseas agents held at Holophane House, Elverton Street, London.

Mr. H. Hepworth Thompson, in extending a welcome to the delegates, said that Holophane was the first to apply the science of illuminating engineering to ordinary illuminating purposes, and it might fairly be said that Holophane and the genesis of illuminating engineering were coincident terms. The movement had extended to all parts of the world. Others had emulated and extended the various things Holophane had put forward until there was hardly a country in the world which had not got its own lighting movement.

Among the papers read were "Recent Researches in Illumination" by Dr. Walsh, President of the Illuminating Society and head of the National Physical Laboratory; "Street Lighting," by Professor Teichmuller; "Cinema and Theatrical Colour Lighting," by Mr. H. G. Williams, who demonstrated in the firm's private theatre the effects and possibilities of Holophane colour lighting; "Science in the Service of Illuminating Glass Manufacturers," by Dr. S. English; "Illumination from the Architect's Point of View," by Mr. G. Grey Wornum, F.R.I.B.A., President of the Architectural Association; "Modern Interior Lighting," by Mr. Howard Robertson, F.R.I.B.A.; "Holophane Developments," by Mr. Ernest Stroud; and "Practical Developments of Holophane Products," by Mr. L. M. Tye.

Mr. G. Grey Wornum said that if a room was lit in an eccentric way it would become tiresome after a time. For that reason he thought it essential to give variety in lighting. In the near future, he said, you might have men perfectly delighted to have three-dimensional pictures in recesses in the house, with projected coloured lighting giving colour shades, so that the pictures could be arranged according to their fancy. He was rather interested to see on the staircase of the Duchess Theatre, one of the new London theatres, some little pictures made up of strips of coloured glass with lights thrown on them. He thought they were a forward movement.

Mr. Howard Robertson said the lighting problem as he saw it was dual. There was illumination and there was the decorative. The solution of those problems required the collaboration of the technician and the artist, and he found, in the most efficient examples of lighting the separation of the two. This was evident and convincing, but in many cases the artist must be absent. Buildings were becoming less and less stereotyped. Take the factory, for instance—different machinery and probably different kinds of lighting even for different departments in the same factory. Even churches were not standardized. You had, say, Roman Catholic and Unitarian. You could not apply the same lighting to both. Churches which were more like a public meeting hall would stand a harder kind of lighting, while Roman Catholic churches must have soft lighting to preserve the mystery of the service. There, he thought, the artist was called upon and he had got to feel his architectural problems very acutely.

*

The coal industry is making considerable progress with by-products which are becoming increasingly useful to builders and constructional engineers. Presotim, the wood preservative produced by the Powell Duffryn Co., and marketed by Stephenson Clarke and Associated Companies, has been specified for a number of interesting jobs recently. The G.W.R. is using it for the roof of Bargoed Station, which is being rebuilt; the Birmingham Housing Department is using it for treating wood fencing in one of their housing schemes, and both Bangor and Aberystwyth piers are having the wood protected by Presotim, which is claimed to have four times the covering capacity of creosote.

*

The following story concerning Mark Twain appears in the July issue of *Leyland Rubber Relay*, the house journal of the Leyland and Birmingham Rubber Co., Ltd. Mark Twain was, in his earlier days, the editor of a Missouri newspaper, in a copy of which a superstitious reader found a spider. On being asked if this was a sign of good or bad luck, Mark Twain replied as follows : "Finding a spider in your newspaper is neither good fortune nor bad for you. The spider was merely looking over our paper to see which merchant is not advertising, so that he could go to that store, spin his web over the door, and lead a life of undisturbed peace ever afterwards."

*

"If you have wood you need Solignum" is the slogan adopted for an interesting leaflet issued by Messrs. Solignum, Ltd. It is pointed out that in temperate climates, where dry rot and decay play havoc with unprotected timber; in the tropics, where the white ant is an even speedier agent of destruction, Solignum is specified by governments, municipalities, railways and building contractors. In addition to its value as a preservative, Solignum is claimed to be an attractive stain for wood. It is made in eighteen different shades, and can be either varnished, or finished with Solignum wax polish. In the leaflet are illustrations in colour of a few of the many ways—for brightening up garden woodwork, for floors, and for poultry houses—in which Solignum can be used. Other illustrations suggest the use of the material for all woodwork, both externally and internally. The sole makers and proprietors are Messrs. Solignum, Ltd., 205 Borough High Street, London, S.E.1.

*

Subject to the approval of the Ministries of Health and Transport, Messrs. Dorman, Long & Co., Ltd., of Middlesbrough and London, have secured the contract for the strengthening of the Scotswood Bridge over the Tyne, about three miles upstream from Newcastle. This suspension bridge, owned by the Newcastle-upon-Tyne Corporation, provides a roadway and footway. The strengthening work will take approximately thirty-six weeks, and will require 350 tons of steel. The contract price is £30,343 12s. 10d.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.

LATEST PATENT APPLICATIONS

20650. Blakesley, J. H. Bridge construction. July 8.

20537. Davy, W. J. Sound-proofing ceilings, walls, etc. July 7.

SPECIFICATION PUBLISHED

331644. Allen, S. Collapsible and transportable shelter or structure.

SALTLEY SCHOOL

Following are the names of the general contractors and some of the sub-contractors for Saltley Secondary School, illustrated on pages 152–156. General contractors, Maddocks and Walford. Sub-contractors : Ragusa Asphalte Paving Co., Ltd., asphalt; Blockley, Ltd., facing bricks; Stuart's Granolithic Co., Ltd., artificial stone and stairtreads; Charles Wade & Co., Ltd., structural steel; Kleine Patent Fire-Resisting Flooring Syndicate, Ltd., fireproof construction; Wormells, Ltd., slates; H. Hope and Son, Ltd., patent glazing; Hollis Bros., wood-block flooring; Marbello, Ltd., patent flooring; Brightside Foundry and Engineering Co., Ltd., central heating; Baxter and Impey, electric wiring; H. Pratt, Ltd., plumbing; Adamsez, Ltd., sanitary fittings; Walker and Worsey, door furniture; Parker, Winder and Achurch, Ltd., and Walker and Worsey, window furniture; I. R. Pearson (Birmingham), Ltd., entrance gates and metalwork; Parker, Winder and Achurch, Ltd., tennis court enclosures and equipment, and cloakroom fittings.

THE ARCHITECTS' DIARY

WEDNESDAY, JULY 30

ARCHITECTURAL ASSOCIATION, 36 Bedford Square, W.C.1. Annual Exhibition of Students' Work, open daily from 10 a.m. to 6 p.m., until August 1. **10 a.m.**

ROYAL ACADEMY, Burlington House, S.W. Summer Exhibition open to the public until middle of August. 9 a.m. till 7 p.m. **9 a.m.**

BOARD OF EDUCATION SUMMER COURSE FOR TEACHERS OF BUILDING SUBJECTS. At the Portland Hall, Little Titchfield Street, Great Portland Street, W.1. "A Builder Looks at America." By L. A. Gerrard, F.I.O.B. Chairman: E. J. Strange, J.P., F.I.O.B. **2.30 p.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "The Weather." By S. H. Groom, B.A. (Illustrated by Lantern Slides.) **3 p.m.**

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. **10 a.m.**

THURSDAY, JULY 31

BOARD OF EDUCATION REFRESHER COURSE FOR TEACHERS IN ART SCHOOLS. At the Victoria and Albert Museum, South Kensington, S.W.7. "Are Art Schools Assisting Industry?" By Henry G. Dowling, F.R.S.A., F.I.B.D., of John Line and Sons. Chairman: Alfred Shuttleworth, A.R.C.A. (Secretary of the National Society of Art Masters).

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Alfred Stevens." 3 p.m. "Modern Sculpture." 7 p.m. Both lectures by Miss M. Chamot. **3 p.m.**

LUTON TOWN HALL, DUDLEY SCHOOL and SOUTHPORT MARKET HALL COMPETITIONS. Latest date for submission of designs.

SATURDAY, AUGUST 2

Sunrise, 5.24 a.m. Sunset. 8.48 p.m.

ROYAL SOCIETY OF ARTS. At the Imperial Institute, Exhibition Road, South Kensington, S.W.7. Exhibition of designs submitted in the R.S.A. Competition of Industrial Designs. Until August 31. 10 a.m. to 5 p.m. (Sundays 2.30 to 6 p.m.). **10 a.m.**

MONDAY, AUGUST 4 (BANK HOLIDAY)

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Masterpieces." 12 noon. "Italian Masterpieces." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

TUESDAY, AUGUST 5

TOWER OF LONDON, E.C.3. "The Tower in Stuart Times and After." By Allen S. Walker. **11 a.m.**

WEDNESDAY, AUGUST 6

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Light and Colour." 12 noon. "Electricity." 3 p.m. Both lectures by S. H. Groom, B.A. **12 noon.**

SATURDAY, AUGUST 9

Sunrise, 5.35 a.m. Sunset, 8.35 p.m.

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By L. O. Faraker. **12 noon.**

TUESDAY, AUGUST 12

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Seventeenth-Century Furniture." 12 noon. "English Eighteenth-Century Furniture." 3 p.m. Both lectures by L. O. Faraker. "Spanish Art." By Miss M. Chamot. 3 p.m. **12 noon.**

THURSDAY, AUGUST 14

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Renaissance Furniture." By L. O. Faraker. **3 p.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Lighting and Illumination." By G. Tilghman Richards. **12 noon.**

SATURDAY, AUGUST 16

Sunrise, 5.46 a.m. Sunset, 8.22 p.m.

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

TUESDAY, AUGUST 19

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Roads and Road Transport." By G. Tilghman Richards. **12 noon.**

THURSDAY, AUGUST 21

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By Miss M. Chamot. **3 p.m.**

SATURDAY, AUGUST 23

Sunrise, 5.56 a.m. Sunset, 8.8 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Ironwork." 12 noon. "Ecclesiastical Metalwork." 3 p.m. Both lectures by L. O. Faraker. **12 noon.**

MONDAY, AUGUST 25

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass." By T. F. Wilson, F.R.S.A.I. **3 p.m.**

TUESDAY, AUGUST 26

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Electricity." By S. H. Groom, B.A. **3 p.m.**

SATURDAY, AUGUST 30

Sunrise, 6.8 a.m. Sunset, 7.53 p.m.

MONDAY, SEPTEMBER 1

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. September 1 to September 6.

TUESDAY, SEPTEMBER 2

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "The Composition, Mixing, Methods of Application of Concrete and Reinforced Concrete, as used in the Yards, and the Control of Same." By T. R. Grigson, M.INST.C.E. "Some Notes on the Composition, Mixing and Application of Concrete in Engineering Works." By C. J. Jackaman, A.M.INST.C.E.

WEDNESDAY, SEPTEMBER 3

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Pieces in Concrete Piles." By M. J. C. McCarthy, A.M.INST.C.E., A.M.MECH.E. "Stresses in Dams." By S. D. Carothers. "A Study of Plain and Reinforced Concrete Retaining Walls." By Ewart S. Andrews, B.SC., M.INST.C.E. "Reinforced Concrete in Great Britain." By A. Kirkwood Dodds, M.C., M.SOC.C.E. (FRANCE). "Reinforced Concrete in Engineering: Representative Examples of British Practice." By M. Gerard, M.SOC.C.E. (FRANCE).

THURSDAY, SEPTEMBER 4

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Work of the Building Research Station on Small Movements in Concrete." By Dr. W. H. Glanville, B.SC., A.M.INST.C.E. "The Effect of Temperature on Flat Arches Constructed of Reinforced Concrete." By C. S. Gray, B.SC., A.M.INST.C.E. "Temperature and Cement." By Dr. Oscar Faber, O.B.E., M.INST.C.E.

SATURDAY, SEPTEMBER 6

Sunrise, 6.19 a.m. Sunset, 7.37 p.m.

XII. INTERNATIONAL CONGRESS OF ARCHITECTS. In Budapest. September 6 to 13. Opening of International Exhibition of Architectural Designs in the Picture Gallery of the Hungarian Scientific Academy. **10 a.m.**

SATURDAY, SEPTEMBER 13

Sunrise, 6.30 a.m. Sunset, 7.21 p.m.

WEDNESDAY, SEPTEMBER 17

BRITISH GLASS CONVENTION. At Buxton. Until September 20. Further particulars will be announced later.

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition in the R.I.B.A. Galleries of Drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.) Until September 30. **10 a.m.**

SATURDAY, SEPTEMBER 20

Sunrise, 6.41 a.m. Sunset, 7.5 p.m.

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

COMPETITIONS OPEN

July 31.—Competition for a Council school to accommodate 320 children, to be erected on the Brewery Fields estate; also a school for 400 children on the Priory estate, for the Dudley Education Authority. Assessor: Herbert T. Buckland, F.R.I.B.A. Premiums: £150, £100, and £50. Applications for conditions of the competition, etc., should have been made to J. Whaley, Director of Education, Education Offices, St. James's Road, Dudley, by April 30. Deposit £1 1s. Latest date for submission of designs: July 31.

July 31.—Competition for proposed town hall, which is to be built on the site of the old town hall, at an approximate cost of £250,000 for the Luton Town Council. Assessor: Sir Brumwell Thomas, F.R.I.B.A. Premiums: £500, £300, £200 and £100. Latest date for submission of designs: July 31.

July 31.—Competition for a new Market Hall for the Southport Borough Council. Assessor: Percy Worthington, F.R.I.B.A. Premiums: £100, £50, £35, and £20. The estimated cost is £13,500. Latest date for submission of designs: July 31.

August 30.—The Carlisle Corporation invites British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. The site was previously occupied by the Prison. The total length of the frontage is approximately 358 ft. Assessor: Francis Jones, F.R.I.B.A. Premiums: £300, £200, and £100. Particulars of the competition, etc., may be obtained from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

September 1.—The Bangor (Co. Down) Borough Council invites architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor: Professor Patrick Abercrombie, F.R.I.B.A. Premiums: £150 and £50 for first and second places, respectively. Copies of the conditions and plans will be forwarded on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs: September 1.

September 30.—The Isle of Man Education Authority invited architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

The Poplar B.C. is to invite architects to submit competitive designs for the erection of new municipal offices in Bow Road, the premiums to be 500 guineas, 300 guineas, and 100 guineas.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A	Bath ..	S.W. Counties	1 5½	1 1½
A_2	Batley ..	Yorkshire	1 7	1 2½
A	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 8½	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 1½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.
Portland cement, per ton £2 8 0
Lias lime, per ton 2 0 0
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
If left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. 6 *in., per ft.*	0	1	3
DO. 9 *in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. 6 in., *per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Yaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Kettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. 9 *in. per roll*	0	4	9
DO. 14 *in. per roll*	0	7	6
DO. 18 *in. per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1-3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra.	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. per hour; SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super.	0	11	0
York templates sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0
Add to the foregoing prices, if in York stone, 35 per cent			
DO. Mansfield, 12½ per cent.			
Deduct for Bath, 33⅓ per cent.			
DO. for Chilmark, 5 per cent.			
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies						£14	0	0
Countess						23	0	0
Duchess						32	10	0
Old Delabole	*Med.*		*Grey*			*Med.*		*Green*
24 in. × 12 in.	£42	11	3			£45	1	0
20 in. × 10 in.	31	4	3			33	0	6
16 in. × 10 in.	20	18	0			22	4	9
14 in. × 8 in.	12	1	0			12	16	3
Green Randoms, per ton						8	3	9
Grey-green do., per ton						7	3	9
Green peggies, 12 in. to 8 in. long, per ton						5	13	9
In 4-ton truck loads, delivered Nine Elms station.								
Clips, lead, per lb.						£0	0	6
Clips, copper, per lb.						0	2	0
Nails, compo, per cwt.						1	6	0
Nails, copper, per lb.						0	2	2
Cement and sand, see "Excavator," etc., above.								
Hand-made tiles, per M.						£5	18	0
Machine-made tiles, per M.						5	8	0
Westmorland slates, large, per ton						9	0	0
DO. *Peggies, per ton*						7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med.	*Grey*		*Med.*	*Green*	
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6
DO., machine-made do., per square 3 7 6
Vertical Tiling, including pointing, add 18s. 0d. per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard,

Scandinavian, etc. (equal to 2nds):			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO. *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	4
DO. *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[continued overleaf

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1s. 8½d. *per hour*; MATE, *do.* 1s. 3½d. *per hour*; ERECTOR, 1s. 8½d. *per hour*; FITTER, 1s. 8½d. *per hour*; LABOURER, 1s. 3½d. *per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1s. 9d. *per hour*; MATE OR LABOURER, 1s. 4d. *per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. 4 *in., per yd.*	0	3	8
R.W.P.. 2½ in., per yd.	0	1	5
DO. 3 *in., per yd.*	0	1	8
DO. 4 *in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. 4 *in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1s. 11½d. *per hour*; LABOURER, 1s. 3½d. *per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1s. 7½d. *per hour.*

Glass: 4ths in crates			
Clear, 21 oz.	£0	0	4½
DO. 26 *oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. 4 *ft. sup.* ,,	0	2	3
DO. 6 *ft. sup.* ,,	0	2	6
DO. 20 *ft. sup.* ,,	0	3	1
DO. 45 *ft. sup.* ,,	0	3	3
DO. 65 *ft. sup.* ,,	0	3	5
DO. 100 *ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. ½ *in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft	0	1	1

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span 1s. 6d. to 2s. per ft.

LEAD LIGHTS, plain, med. sqs 21 oz., usual domestic sizes fixed, per ft. sup. and up	£0	3	0

Glazing only, polished plate, 6½d. to 8d. per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1s. 7½d. *per hour*; LABOURER, 1s. 3½d. *per hour*; FRENCH POLISHER, 1s. 8½d. *per hour*; PAPERHANGER, 1s. 7½d. *per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	6
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	0	9
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.
The measured work price is on the same basis . . . per ft. sup. £0 0 2½

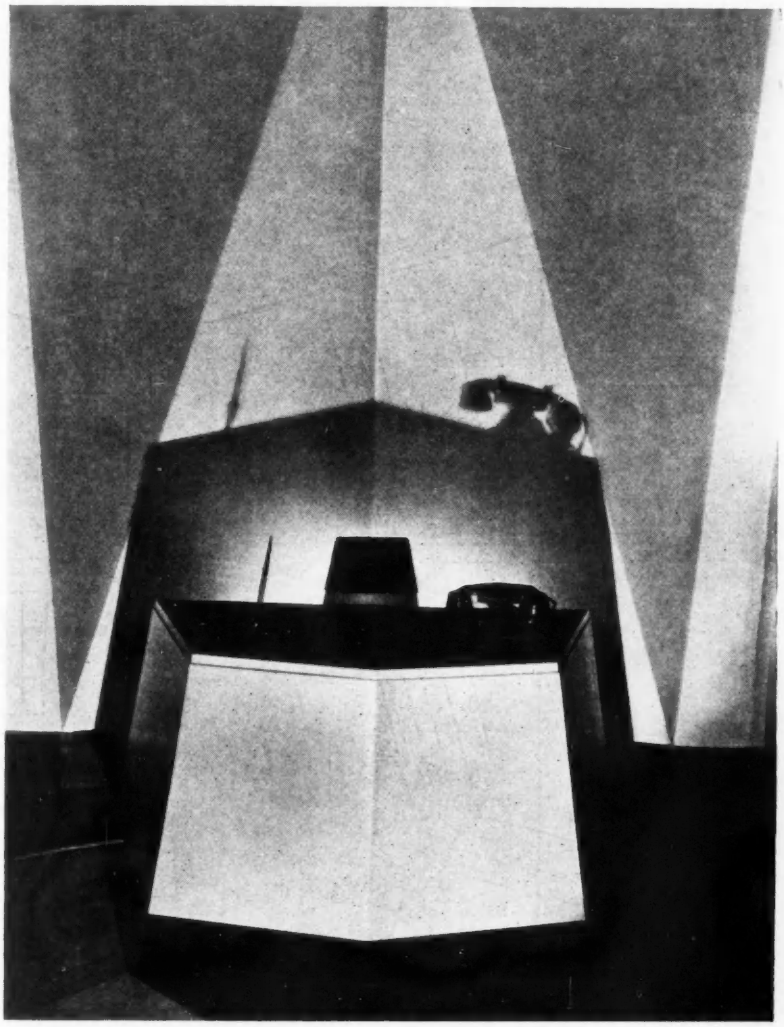
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . from	0	2	3
Asbestos sheeting, 5/32 in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, 5/32 in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ¾ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	0	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	5/32 in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	11	9½	—
Figured Oak 1 side	5½	7	—	10	8	—	11½	—	—	13	11	—
Plain Oak 1 side	6½	5	—	7½	7	—	9½	—	—	10	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



DESK AND STOOL AT No. 26 BRUTON STREET, MAYFAIR
DESIGNED BY P. E. PALMER

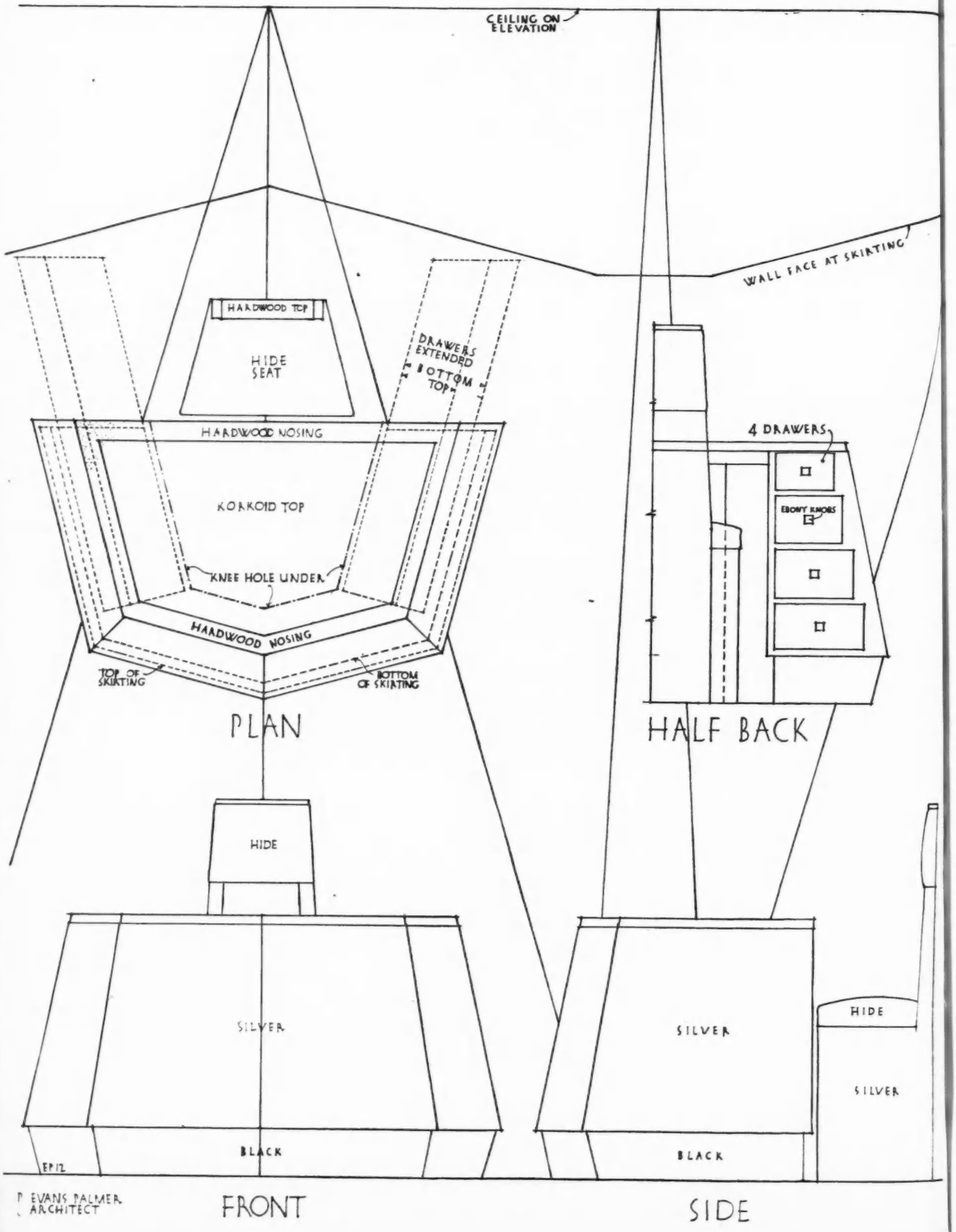
THE desk shown above with its stool is one of eighteen flanking the sides of a long reception office, and is constructed entirely of Ibus laminated board. It will be noticed, on reference to the plan and elevations shown overleaf, that its shape has a definite relationship to the walls against which it is placed—i.e. on the plan two of its five sides are at right angles to the wall faces, while another two are parallel thereto; and in elevation all the sides are plotted to a point where wall meets ceiling, immediately above. Each desk is fitted with eight drawers, which, by virtue of the canted sides of the desk, open very conveniently away from the seat and working space.

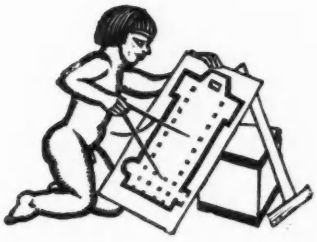
The stools also are framed up and finished in laminated board, and have their sides and backs covered in a pale green calf. The desks are finished in cellulose sprayed silver, finished with a cellulose lacquer, with black skirtings and hardwood nosings to the tops, finished to match the calf of the seats. The tops of the desks are filled in with grey Korkoid.

(Other views of this office were reproduced in THE ARCHITECTS' JOURNAL *for April 23, 1930.)*

The drawing may be read with an ordinary architect's scale—1 in. = 1 ft.

26 BRUTON STREET W
INCH SCALE DETAILS DESKS & STOOLS





WEDNESDAY, AUGUST 6, 1930

THE FIREMAN MOVES ON

". . . . At any given point, congestion is . . . . a direct function of the population using buildings served by the street."

FREDERICK L. ACKERMAN

TWO separate resolutions brought up at the meeting of the L.C.C. on July 29 last will, when regarded together, be seen to point very clearly to the new angle from which the State is today approaching the control of buildings. Each of these motions is of sufficient interest by itself, but that the two of them should have been raised the same afternoon gives them the value of a prophetic utterance.

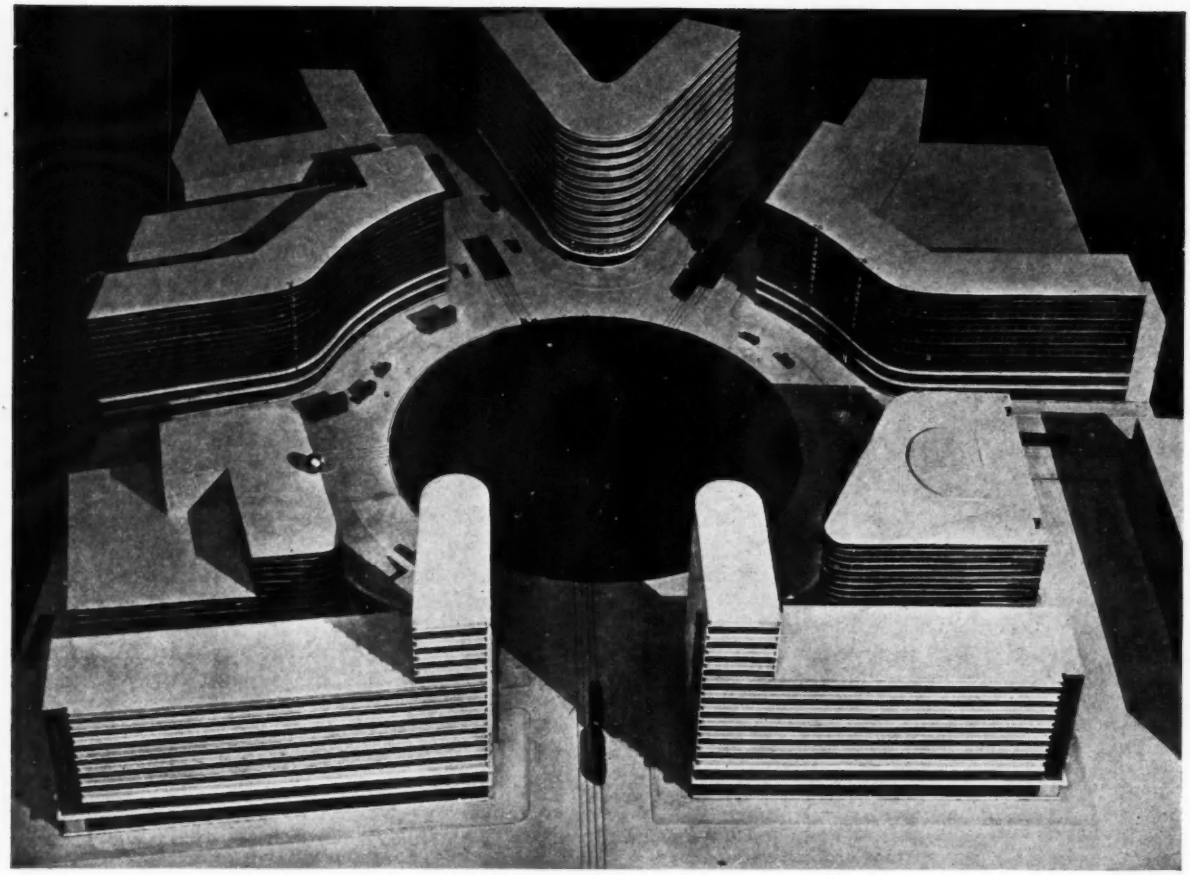
First, the Special Committee on Traffic asks that plans of new buildings should in future be subject to the approval of the Commissioner of Police, who will look closely into the amount of vehicular traffic likely to be attracted by the proposed building. It appears that the police have been urging for some time past that such an arrangement should be enforced by law. Large new buildings in the shopping and theatre districts are, it appears, giving trouble already. Indeed, the street obstruction directly traceable to new buildings, as this JOURNAL has frequently enough predicted, is reaching such a pitch that the evil must now be treated at the root, and at once.

Secondly, the Building Acts Committee recommends that certain types of commercial buildings, hitherto restricted to a height of eighty feet as a precaution against fire danger, shall be allowed to rise to a height of one hundred feet, subject to proper protective measures. Some of the daily papers felt called upon to report this suggestion under headlines proclaiming the arrival of skyscrapers in London. Nothing could be farther from the true facts. The hundred-foot limit is of course an old-established one, and all that has happened is that certain buildings, now prevented from reaching the full building height, will in future be treated on the same footing as their more fortunate neighbours.

Now, if there is one thing that these two resolutions demonstrate, it is that our Victorian building bylaws are indeed, though slowly, passing away; because the dangers they were set up to avert have become much less than they once were. But while advancing civilization has disarmed the bogeys of the Victorian legislators, it has created new ones in their place, and as these grow and multiply it is inevitable that building legislation should shift away from the ground that once was its own.

What were the dangers that awaited the incautious builders three-quarters of a century ago, when the bylaw maker started his work? There was, first, the danger of a building falling down. New methods and new materials were being introduced in a tentative but somewhat excited manner, and collapses were not infrequent. There were the horrors of fire, cruel beyond our imagining today, where, with panic ensuing, it attacked crowded public buildings, more especially those in which public entertainments were given. And there were the less spectacular but even more deadly horrors of infectious diseases, air-borne and water-borne, begotten of improper sanitation. These three dangers were not the only ones, but they loomed high above any others to which built-up city areas were subject. And they were guarded against as closely and as cunningly as any of the physical enemies that have threatened the life of man. The building bylaws of nineteenth-century England were an administrative achievement that has not been equalled in after years.

But what is the position today? Fire-fighting appliances are with us now in ever greater number, and hygiene and sanitation have made greater strides than our pampered generation realizes. The progress of structural engineering and the perfecting of our structural materials have also transformed the whole process of building. Our bylaw inheritance does more in many ways than is required of it today, and is rapidly becoming an impediment and a hindrance. So far, the authorities have been reluctant to give way an inch; now one section of them, the fire-fighting one, has set an example of the new tolerance that will soon be required of all. And at the same time a stricter surveillance is foreshadowed in a quarter where it has only recently become necessary. Thus slowly, and with a great deal of creaking, the old machine is adjusting itself to the new tasks.



A PROPOSED TRAFFIC CIRCUS IN BERLIN: PHOTOGRAPHED FROM A MODEL

This scheme, devised by Brüder Luckhardt and Alfons Anker, for the reconstruction of the Alexanderplatz, though not finally adopted, presents features of interest to a student of traffic problems with London in mind.

The Alexanderplatz can best be compared to the Bank in regard to the importance of the traffic crossing it, and to Aldgate Broadway in respect of its geographical position in the street plan of Berlin. Among the buildings flanking it, scheduled for retention, is the Polizeipräsidium, the Scotland Yard of Berlin, a vast and gloomy Romanesque edifice of terra-cotta, contemporary with our own Natural History Museum. The opposite corner is skirted by the viaduct of the Reichsbahn, which not only accommodates the local Berlin electric lines, but also the main international railway routes connecting Western and Eastern Europe.

Another view, and some comments by Astragal, appear in the "News and Topics" pages.

NEWS & TOPICS



Two ways of doing it, in Oxford. It is not often that so striking a contrast between the bad old ways and the orderly new is to be caught as in these two corner treatments, photographed for the latest D.I.A. "Cautionary Guide."

NEW SCHEMES FOR CHARING CROSS BRIDGE

THE Charing Cross Bridge Committee, sitting under the chairmanship of Sir Leslie Scott, have intimated, through *The Times*, their willingness to receive schemes within a certain period, thus reviving all the old hopes that went down the wind before the official scheme was thrown out by Parliament.

★

While it is certainly possible that the Committee may be inundated by all the crack-brained ideas of every crank at liberty, it will also clear the air for wider issues than those contained within narrow terms of reference, and it may still happen that larger considerations than those of immediate traffic requirements will be allowed to govern their decisions, perhaps even that they may see their way to accept some of the chances of great future developments which courage and fine planning alone can bring to this enterprise. There was too close an adherence to *dead* fact, and far too much subservient pandering to purely selfish as opposed to national needs of the Railway Company. The new Committee has a deal to forget.

OTHER NEW THAMES BRIDGES

The Middlesex and Surrey Joint Thames Bridges Committee have accepted tenders for the construction of new bridges at Hampton Court and Chiswick. Little has been heard of this last, which has been designed by Sir Herbert Baker, though there has been a certain amount of controversy over the additions to the engineer's design for Hampton Court Bridge, which Sir Edwin Lutyens was called in to finish. These additions, that look like little lodge gates on a turnpike road, are known to town councils as kiosks. They are to be omitted from the contract at present, and I devoutly hope for ever, being more superfluous than anything ever added to a finished design.

WHY NOT EVERY POLE A MAYPOLE?

The protection of Rural England has its unlooked-for reflections. The latest thing in telegraph insulators is coloured green to match the countryside. Let no man scoff at this simple story, for we are in the presence of a real and genuine attempt to shade the horrid signs of industrial expansion into the bosky leafage of rural England. Purists and the higher criticism will object that there are a hundred greens to be found in every lane, and that commerce will go crack for the wrong one. Others may remind us of the changing leaf and winter's branches bare. I might even myself say, frivolously, and aside, why not pink insulators, and blue? Why not red, white and blue? And why stop at the insulator? Why not leave the branches on the telegraph pole? Why not every pole a maypole?

AN L.C.C. HOUSING CITY

The L.C.C. have now completed the Downham Housing Estate, which occupies an irregular site between the old Bromley Road, on the west, and Bearing Road, on the east. Architecturally, the houses erected present many points of interest, as they have been built mainly under the 1924 Act, and much skill has been shown in the internal planning. The work of development was commenced over six years ago, under a "value cost contract." The houses generally are made of red or soft brick or rough-cast concrete. Among the experimental houses to be found on the estate are two "Atholl houses," two "Weir houses," two "Telford steel houses," two "Dennis Wild steel-framed houses," and eight "Prefacto houses."

THE DE-PLASTERED INN

There was a reference in the annual report of the Society for the Protection of Ancient Buildings to a certain inn in Salisbury, the zealous owners of which had uncovered the timber framing of a fine plastered gable, and so upset the continuity of surface in a row of buildings that had hitherto fallen very pleasantly together. These owners were referred to as sentimentalists with eyes to profits; and their action was considered vandalistic.

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Now it appear, that the brewery company would not have removed the plaster, even though they might have wished to, had not a certain antiquarian spotted the timber underneath. Very soon lots of antiquarians were buzzing about, like flies round meat, rubbing their hands with foolish glee, and ruthlessly plunging the brewers into the expense of exposing the construction of this old gable to the light of heaven and the eyes of Salisbury. And so, for a few years, the little group is put out of action. Personally I prefer the expanse of plaster to the broken-up half-timber, which has no sense of design in it, but I feel sorry that the owners should have been subjected both to the higher criticism and the lower obloquy. The real sinner is the cigarette-advertising agent who covered the adjoining building with bad lettering. He is an outsider.

BERKELEY SQUARE GOING

Berkeley Square is up for auction and it will go. It is compact of historic and literary association. The estate agents have it all pat. But that does not matter. It will go, all of it, and be rebuilt up to the limit of height—in a new manner—for flats and offices, shops and hotels. It will be recreated by us, and for a far worse educated age than the clients who first commanded good architecture to arise a hundred and fifty years ago. There will be a clamour for higher buildings to offset the open space of the Square, just as though we all so enjoyed our beastly little ration of light and air that we could afford to do without a little extra when it came our way. The L.C.C. is quite firm on the point of there being no higher buildings, and they are backed by a growing consensus of opinion, so that it is unlikely that we will find skyscrapers in the Square. Dear Berkeley Square ! It seems very sad.

PAGHAM HARBOUR TO BE DEVELOPED

There is talk of a new garden city on the South Coast somewhere near Bognor. The last attempt was that Peacehaven of horrid memory, at the thought of which one shudders involuntarily. This new town is, happily, of another order, and starts life on the drawing board of Mr. E. Prentice Mawson, of Thomas Mawson and Son, with all the promise that a desire to evolve a welding of natural and architectural amenities may hope to produce.

★

There is, of course, no reason other than the presence of greed and rapacity why a new seaside place should not be beautiful from the beginning, and for all time, so long as there is the intention to create beauty and to control its growth. One has but to think of the Georgian developments that alone made the South Coast resorts possible, to realize how destructive of all real beauty is the notion that *old-world* charm can be resurrected by sentimental imitation.

★

The other factor that always fills me with fear is that of finance combined with courage. So seldom are they to be found together that we may see along every few miles of coast the unhappy results of ambitions frustrated by lack of policy and a too hasty wish to make money.

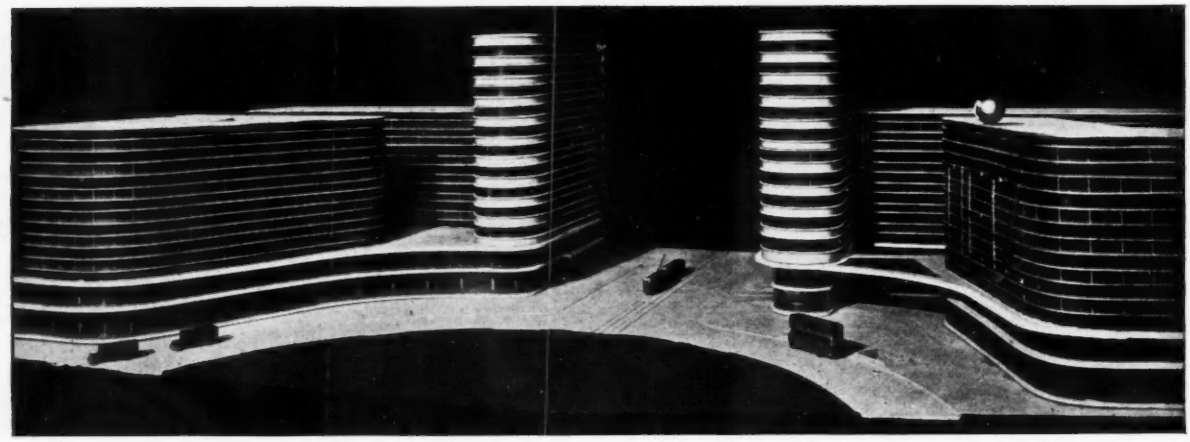
REPLANNING BERLIN'S BUSIEST TRAFFIC CENTRE

The fiasco of the L.C.C.'s Charing Cross Bridge Bill, in which the one germane consideration ignored was, ironically enough, the paramount one of town-planning, may lend a certain spice of civic envy to the subject of the illustrations reproduced in this issue. They represent two views of a model of a project for the replanning of the Alexanderplatz in Berlin submitted by Brüder Luckhardt und Alfons Anker, B.D.A., in an *ad hoc* competition instituted by the Municipal Council of the German capital. Actually, this competition (the importance of which was recognized by the very considerable premiums attached to it) was won by Professor Peter Behrens, under whose auspices the remodelling of this busy centre for bus, tram, taxi and lorry traffic is now being carried out; though Messrs. Luckhardt and Anker's scheme, in many respects the most interesting of those sent in, was among the first premiated designs. The ultra-Modernist type of architecture shown was merely intended to illustrate the suggested regrouping, and the governing elevations of the new blocks of buildings to be erected round this Platz. The circular grass-sown Tom Tiddler's ground in the middle is reserved for the trams : a device which has already proved a very efficacious solvent of traffic congestion in the Potsdamerplatz and the Lützowplatz.

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At present the Alexanderplatz is a chaos of sandy excavations and timber hoardings, owing to the fact that an immense new *Untergrundbahn* tube station, with three different levels of platforms, is being constructed underneath it. This is to be connected with the adjacent Reichsbahn viaduct station of the same name by a series of escalators. In another couple of years, or less, the Alexanderplatz will emerge from its chrysalis stage almost unrecognizably transformed as a model of everything that the layout of an important metropolitan traffic centre ought to be. Meanwhile all is still slumberously quiet on the vastly more important and encumbered London traffic front; and the Knightsbridge and Berkeley Street bottle-necks, to say nothing of the all-but-impassable intersection of Oxford Street by the Charing Cross and Tottenham Court Roads, are likely to be left exactly as they are for another decade or two.

ASTRAGAL



The Alexanderplatz, Berlin, reconstruction scheme, devised in competition by Brüder Luckhardt and Alfons Anker : a view from inside the model illustrated in the frontispiece.

MARTINS BANK, HIGH ST., MAIDSTONE

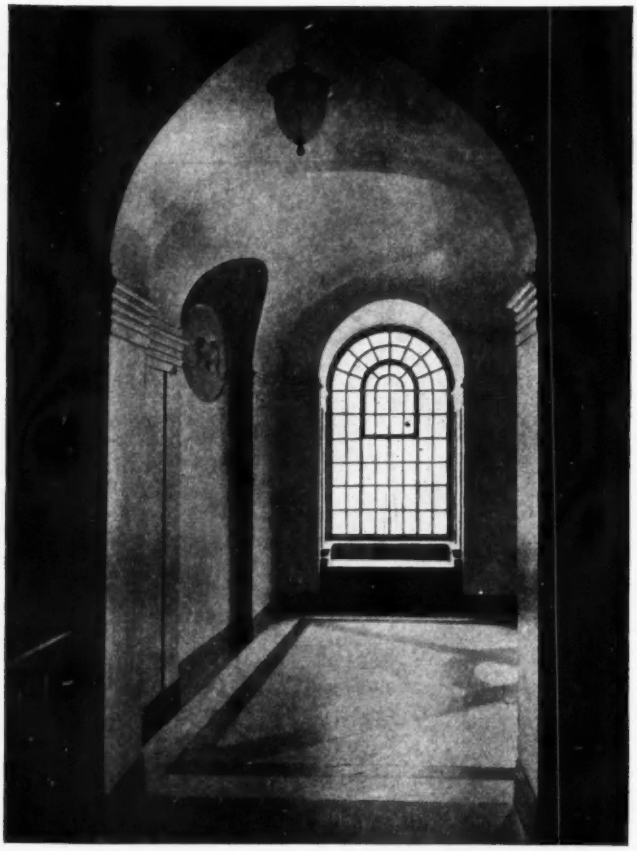
DESIGNED BY DARCY BRADDELL AND HUMPHRY DEANE

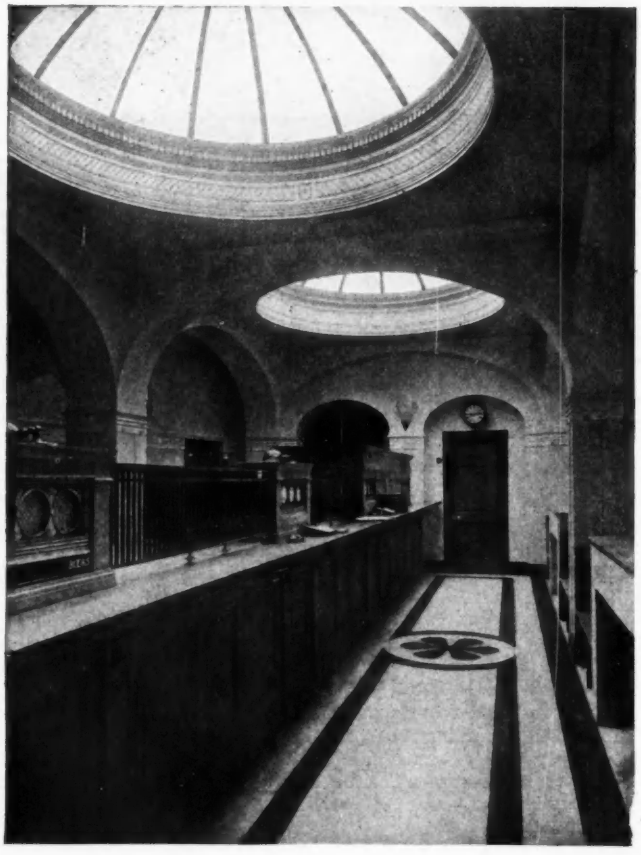


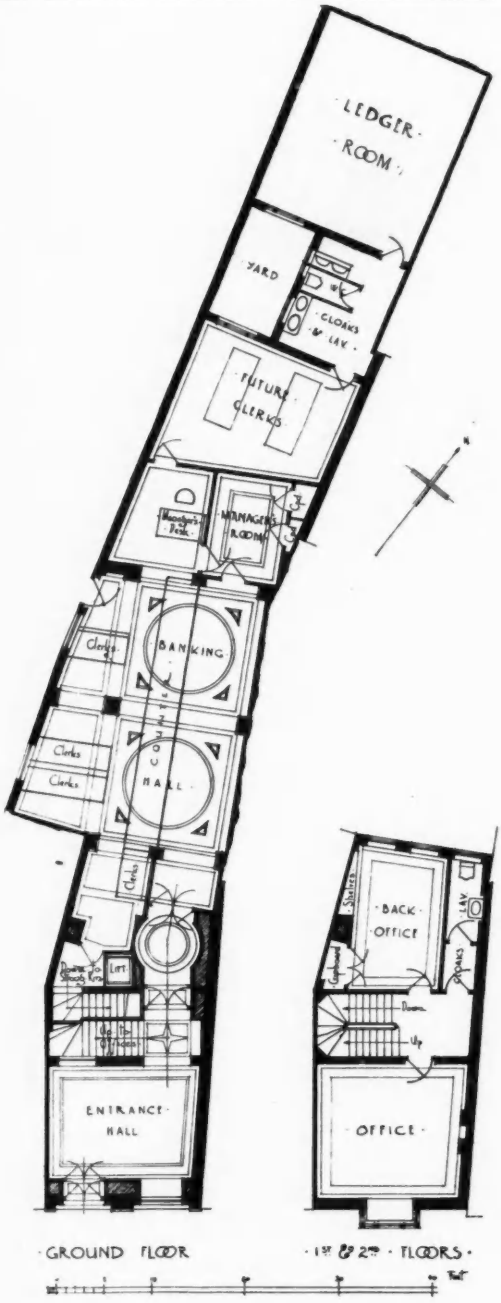
The façade to High Street is built of 2-in. dull red local bricks. The overhanging bay of the previous house, which dated from the seventeenth century, was repeated in oak framing, brick nogged. The line of the old main cornice was kept and also carried out in oak.

THE unusual domestic character of this bank is chiefly due to the wish of Mr. Robert Holland Martin, chairman of Martins Bank. The site upon which it stands in High Street was previously occupied by a very narrow-fronted seventeenth-century house. Externally, this house had no particular architectural merit, but it was of sufficient charm to cause regret at the thought of its demolition. Both the old house and its neighbour had overhanging bays and modillioned cornices which lined up under the hipped roofs covered with their original tiles. The old house was so badly built that there was no possibility of preservation. In fact, it would have collapsed if serious structural changes had been attempted. Mr. Martin asked, however, that, in rebuilding, something of the character of the old building should be preserved.

As will be seen from the plans reproduced on page 188, the site was so narrow that it was impossible to plan an adequately lighted banking hall on the street front with, in addition, an entrance to the chambers above. The problem was eventually solved by planning the entrance hall on the street front, with a corridor, on the left of which are the main stairs, leading to the banking hall at the back of the site. Behind the banking hall are the manager's room, future clerks' room, and







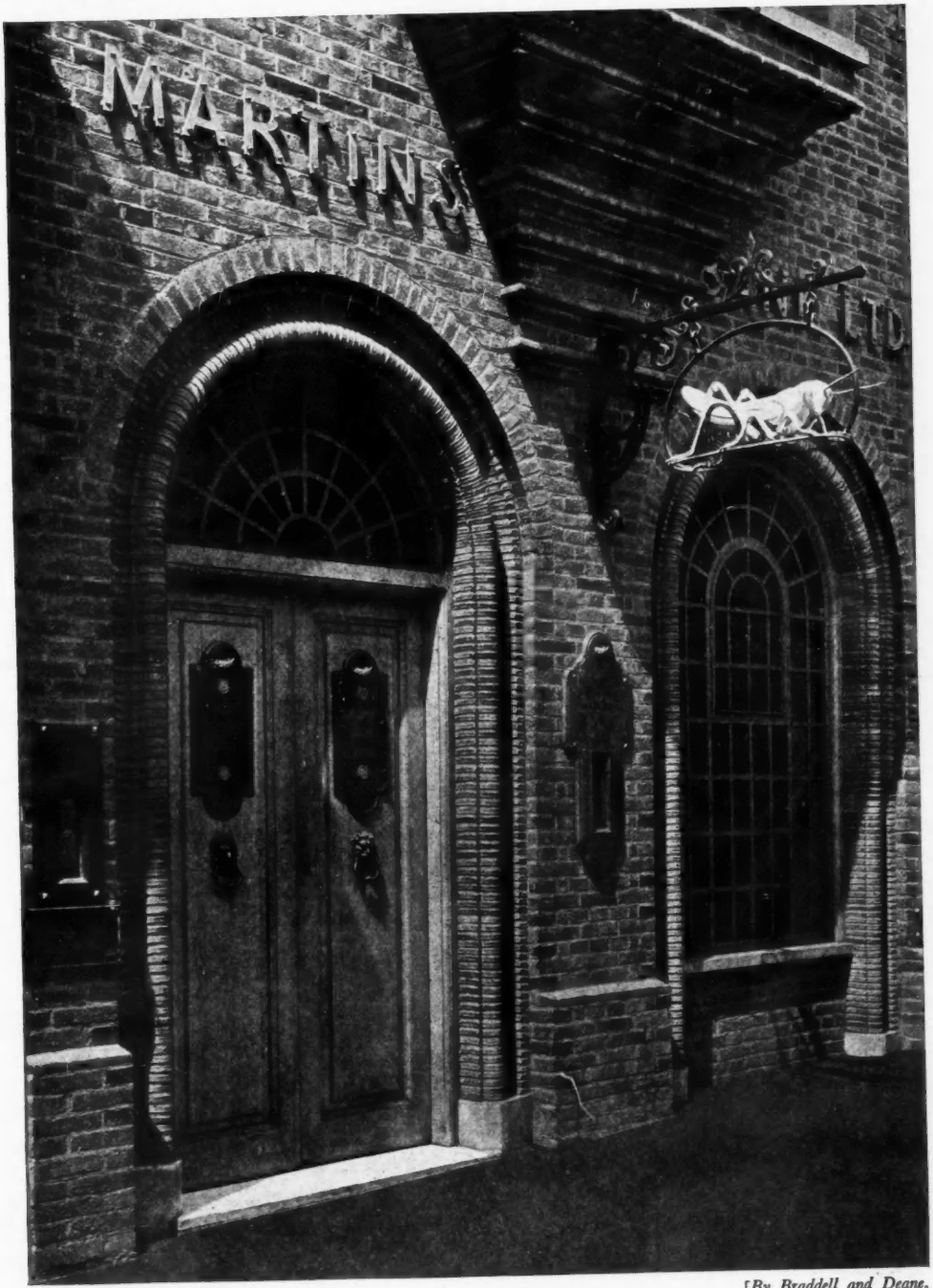
Looking towards the entrance hall from the staircase lobby; the banking hall; and the plans. On the ground floor the scheme of decoration adopted is fawn, white, grey, and black. The doors are of weathered oak, set in ebonized frames. The walls are painted and stippled to imitate, fairly closely, Hopton Wood marble. The bank's emblems of the Liver and the Grasshopper are used in various places, notably as plaques in the entrance hall, the ceiling of which is vaulted.

Martins Bank, Maidstone.] [*By Braddell and Deane.*

ledger room. The first and second floors are planned only on the front portion of the building, and each consists of two offices, placed one on each side of the staircase, and lavatory accommodation.

On the street façade the bay window is held on a brick corbel, as it had been previously in the old house. The bricks for this purpose were specially made, as were the tiles forming the archivolts of the ground-floor arches.

Once inside the entrance hall, all attempt at "period" was abandoned, and the interior was handled without a thought of any particular bygone age. Features of the interior are the bank's emblems of the Liver and the Grasshopper which are used in various places, notably as plaques in the entrance hall, the ceiling of which is vaulted. There is a black and gilded grille in the entrance hall, set in an oval, to admit light to the staircase on its first flight.



Martins Bank, Maidstone.] *[By Braddell and Deane.*

The main entrance. From the wrought-iron bracket hangs the ancient sign of the gilded grasshopper, which has been used by Martins Bank since its foundation in the sixteenth century. Name plates are in pewter with incised lettering filled with red wax.



The entrance front and forecourt, seen from the north-east. The porticoed entrance to the old house was in the south-easterly end, as seen in the illustration reproduced on page 192.

WOLFORD LODGE, DUNKESWELL,

DESIGNED BY

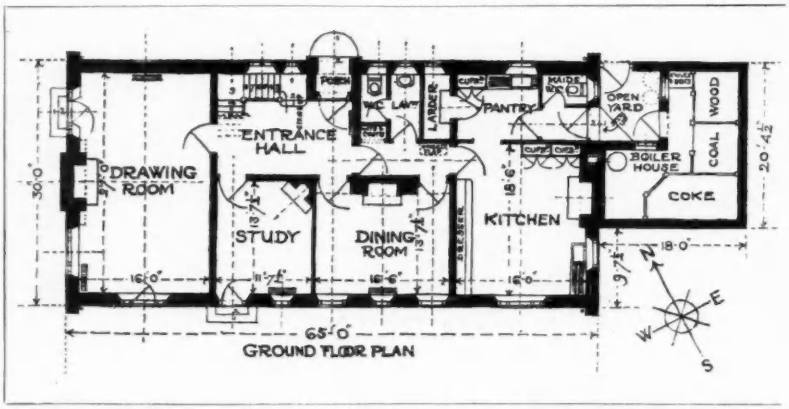


A distant view of the old house, giving an impression of the situation.

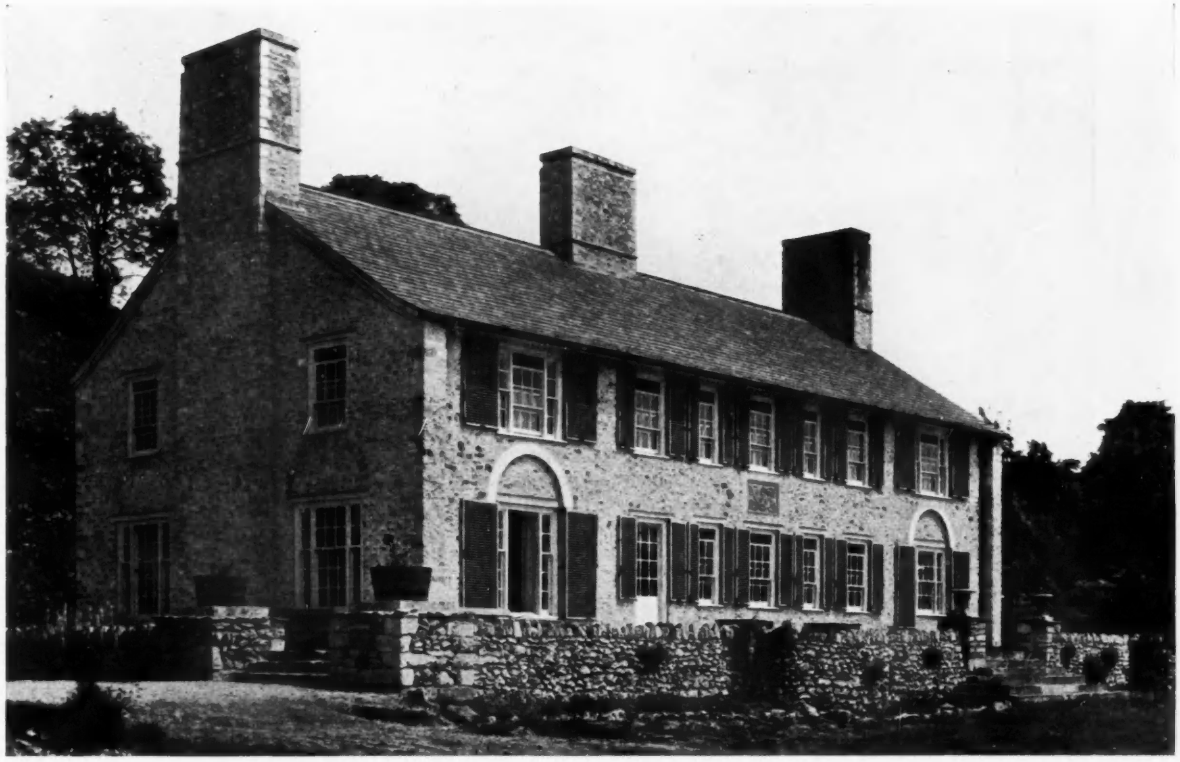
THIS new house occupies part of the site of an earlier one, set in the hilly, wooded country in Devonshire, lying between Cullompton and Honiton, that was demolished in 1924. A large, rambling house, inconveniently planned and in bad repair, having been built in the late eighteenth century, with additions dating from the early nineteenth century and from Victorian days, it yet had many features of interest,



A near view of the entrance doorway in the main front, illustrated above.



The drawing-room extends through the house, and is nearly double the size of the study and the dining-room. The large kitchen and commodious service quarters are eloquent of the care taken to assure easy working.



NEAR HONITON, DEVONSHIRE

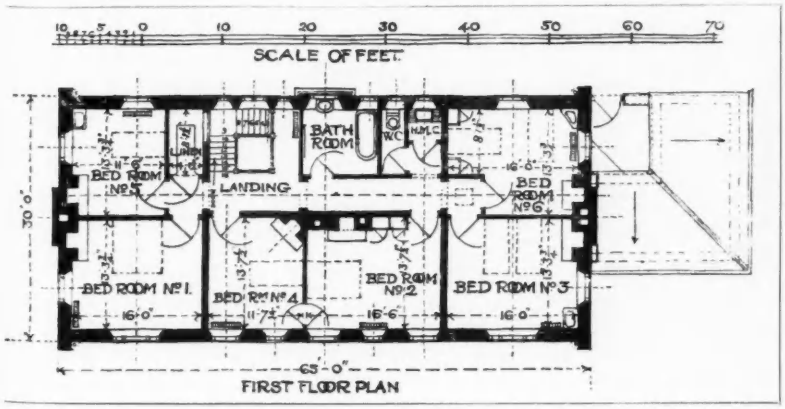
BASIL OLIVER

as will be seen from the photographs, taken before the war and here reproduced for purposes of contrast.

It was decided to demolish it, in favour of a more modest and convenient establishment, but certain materials and fittings, some probably of even earlier origin, were preserved and have been re-used. In aiming at economy of first cost and in subsequent working a notably compact plan has been evolved.

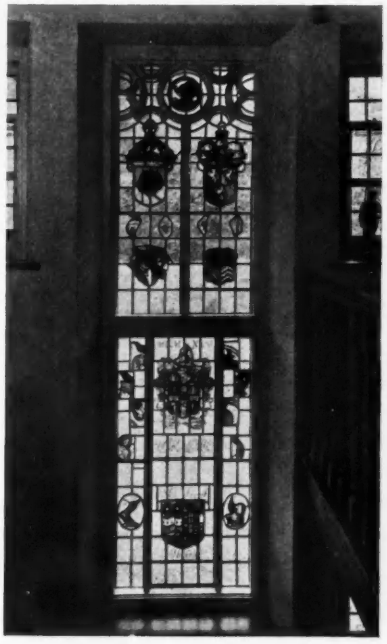


The entrance lodge, which it was found possible to preserve unaltered.



Six bedrooms are provided, four of them lit with southerly-looking windows. The bathroom and lavatory are on the opposite wall, and are divided from the main rooms by a transverse corridor that gives character to this floor.

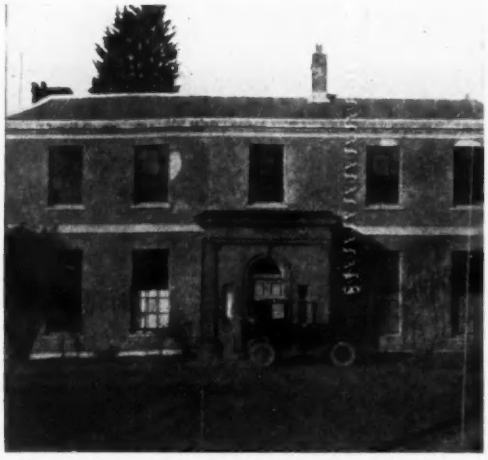
The garden front, from a south-westerly view-point. The extensive use of stone, both in the house, and for the terrace walling, respects the traditions of the locality.



A view, from within, of the stained glass window to staircase, flanking the front door.



The photographs reproduced on this page are of the old house, demolished in 1924. This one shows the southerly front, with the opulent bows and regular fenestration characteristic of its period.



The entrance porch was the central feature of the perfectly symmetrical south-east end.



The south-westerly bow differed from its fellow only as to type of openings.

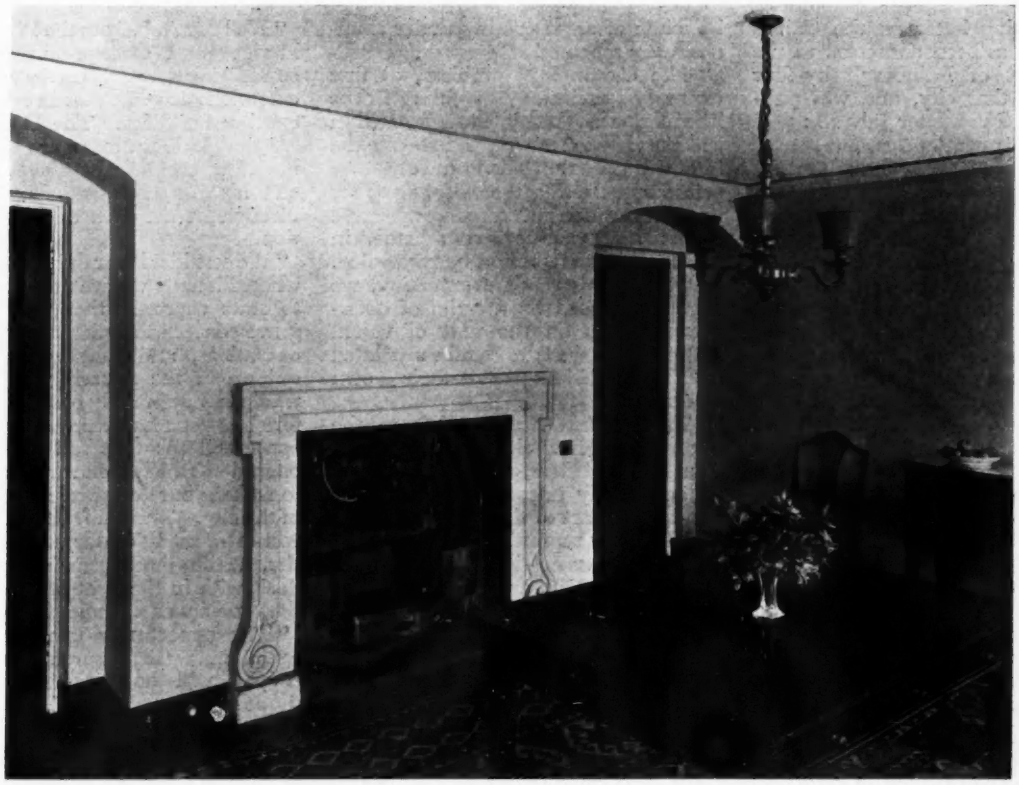


Wolford Lodge, Honiton, Devon.] *[By Basil Oliver.*

This view reveals the appearance of the entrance hall when last the old house was in occupation, and, with its statue and bust, dinner gong, heating stove and light fitting, tells its own tale.



The drawing-room fireplace has another similar window on its other side : they look nearly west.



Wolford Lodge, Honiton, Devon.] [*By Basil Oliver.*

Both the mahogany doors and the stone fireplace in the new dining-room are relics of the past : the latter, from its character and the details of the room in which it was found, was probably incorporated in the early-nineteenth-century house from one of yet earlier origin—late-seventeenth century or Queen Anne.

THE ARCHITECTS' JOURNAL SKETCH CLUB

JUNE COMPETITION AWARD

THE Editor of THE ARCHITECTS' JOURNAL who, under Rule 8 of the conditions, was appointed Assessor of the Holiday Sketches Competition, has made his report.

The report states that sixty drawings were received by July 15 last, the closing date for the June competition, and that these drawings have been carefully examined by the Assessor.

The report then goes on to recommend that the FIRST PRIZE OF TEN GUINEAS be awarded to the author of the pencil drawing of "South Side of St. Pierre, Avignon," who submitted five drawings under the pseudonym of

AVIGNON

and the SECOND PRIZE OF FIVE GUINEAS to the author of the pencil drawing of "The Judge's House, in the Close, Salisbury," who submitted four drawings under the pseudonym of

PENCIL

The sealed letters sent in by these two competitors were afterwards opened on behalf of the Club, when the winner of the First Prize was revealed as:

Mr. P. J. Westwood,
14 Buckingham Street, W.C.2,

and the winner of the Second Prize as:

Mr. Alan Sherwin,
c/o *Evans, Clark and Woollatt,*
Eldon Chambers, Wheeler Gate,
Nottingham.

Congratulations to Mr. Westwood! Congratulations to Mr. Sherwin! The SKETCH CLUB is proud of their work, and proud of having them among its members. Their sketches, together with a selection of the other drawings submitted, will be on view NEXT WEEK.

THE TOWN PLANNING OF EDINBURGH

THE following letter on the Calton Jail site has been addressed to the Lord Provost of Edinburgh by four architects of that city, and was published in *The Scotsman* for July 28:

"15 Rutland Square,
"Edinburgh.

"We, the undersigned architects, appointed by the Royal Scottish Academy, the Merchant Company, the Royal Incorporation of Architects in Scotland, and the Edinburgh Architectural Association, to serve on the committee recently set up by you to consider and advise as to the development of the central area of the city, beg to put before your Lordship the following representation.

"The object of the committee, as defined by resolution, was to devise a properly co-ordinated building policy, and to lay down a plan, so far as it is practicable to do so, for the development on right lines of the central part of the city, or such parts of the city as may be considered advisable, keeping in view more particularly the better grouping and rearrangement of public or other important buildings. The problem before the committee embraces *inter alia* the University and Educational Institutions, Museums, the National and other Libraries, Law Courts, Municipal buildings, street improvements, and, by implication, the use to be made of areas coming under slum-clearance schemes.

"The Calton Hill problem, at first expressly excluded by the Prime Minister, was lately brought within the purview of the committee on the initiative of the Government. The prime opportunity, therefore, arose for the preparation of a comprehensive report and well-devised scheme, in which all interests might be reconciled. Instead of this result eventuating, we have been faced by a series of determined efforts on the part of vested and other interests to obtain unrelated interim decisions in their own favour.

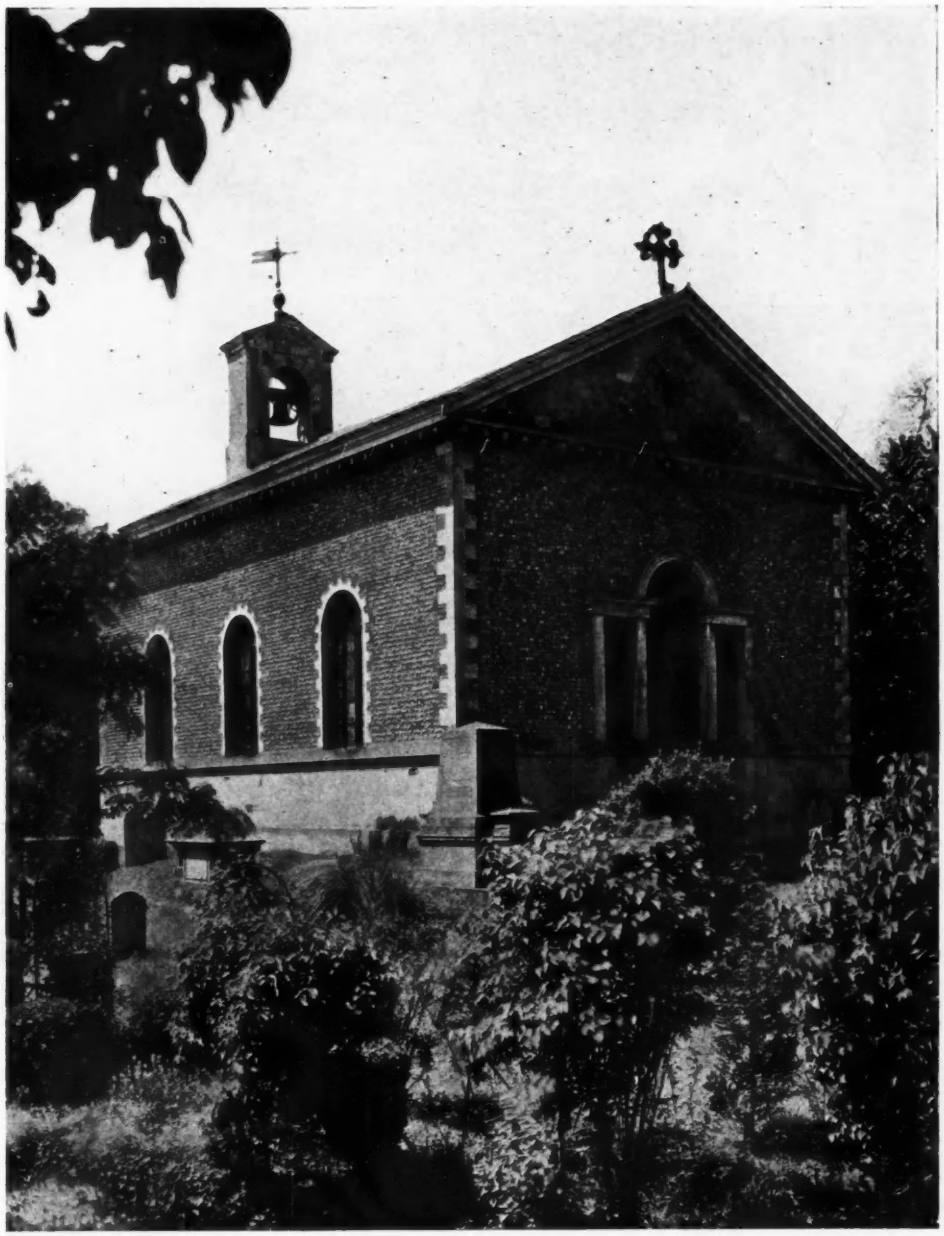
"The problem then arose as to the finding of a new site for the Sheriff Court-house. Here, again, we were met by an equally uncompromising assertion on the part of the Office of Works and Treasury representatives, that they would consider no site other than that of the Calton Hill, and this quite apart from the question whether or not the Government buildings were to be placed there. Such a proposal shows that the Office of Works were in no wise concerned with our town planning problem, since, failing the erection of the Government buildings there, the Sheriff Court-house must have stood solitary and apart at one end of a large vacant space, and quite remote from its associated Courts of Law.

"We learn, too, from the Press that the Heriot Watt College authorities are considering sketch plans for patch-work extensions at great cost in rear of their existing buildings. The Governors of George Heriot's School are busy, while the City Architect is actively engaged on housing reconstruction schemes throughout the area under consideration.

"We consider it our duty to the public, whose interests we are anxious to serve, to state expressly that we view with grave concern this piecemeal scheme of operations, and that we cannot acquiesce in the frittering away of the whole town planning project; we therefore beg your Lordship to appeal to all concerned for that full and free co-operation which alone will enable you to realize your great project for the good of the city. The plan, once drawn out, will solve many of our present difficulties, while those remaining may be dealt with in the light of knowledge of the problem as a whole.

"The opportunity can never occur again, and we feel assured that in seizing it you will have the wholehearted support of the people of Edinburgh and, indeed, of Scotland.

(Sgd.) JOHN BEGG, F.R.I.B.A.
REGINALD FAIRLIE, A.R.S.A., F.R.I.B.A.
HENRY F. KERR, A.R.I.B.A.
F. C. MEARS, F.R.I.B.A."



ENGLISH PRECEDENT No. 127

CHURCH OF SAINT MARY THE VIRGIN, GLYNDE, SUSSEX

This little church was built in 1765; its architect was John Maurice of Lewes.

Both pediments have mutilated cornices, and the eastern one, seen in the above view taken from the south-east, wears its Victorian cross rather truculently. Otherwise the building is unscathed by the years that have passed over it, and well exemplifies what an eighteenth-century gentleman would put in place of a decayed church standing in his park.

The walls are built of the flints and clunch of the neighbouring South Downs: both the flintwork and the ashlar are very well done. This photograph should be compared with last week's Precedent.

—[H. S. GOODHART-RENDEL]

REVISION AND CO-ORDINATION OF BUILDING BY-LAWS

Deputation to the Minister of Health

THE Minister of Health received a deputation last week from Members of Parliament and representatives of the Associations mentioned below, on the subject of the restrictions imposed under existing building legislation.

The deputation was introduced by Mr. J. Walker, M.P., and included: Mr. Louis Smith, M.P., Mr. J. Baker, M.P., Mr. Clement Davies, M.P., Major Beaumont Thomas, M.P., Mr. Maurice Webb, Mr. C. J. Kavanagh (British Steelwork Association), Mr. Bossom (Building Industry Council of Review), Mr. Searles-Wood (Institution of Structural Engineers), Mr. Holloway (London Master Builders' Association), Lord Ebury (London Employers' Association), Mr. Coppock (National Federation of Building Trades Operatives), Sir Woodman Burbidge (Incorporated Association of Retail Distributors), Sir Francis Towle (Hotel and Restaurant Association).

Mr. Louis Smith made the following statement, and his views were supported by Mr. Maurice Webb, Sir Woodman Burbidge, Mr. Coppock, Lord Ebury, Mr. Kavanagh and Sir Francis Towle.

We wish to call attention to the extent to which the control of building, especially in London, has become a serious menace to enterprise and employment not only in the building trades but in the vast number of ancillary trades whose welfare is vitally dependent upon the building industry. There is no doubt that the cumbrous and bureaucratic control so often exercised far exceeds the limits necessary to safeguard public health and safety which we, no less than the authorities concerned, consider it our business to secure.

This control, especially in the sphere of commercial and industrial buildings, is exercised under Acts which in many cases date back to the last century, imposes very serious restrictions upon the use of modern materials, and methods of construction, and has given place to the growth of administrative machinery which needs drastic simplification.

If the revolution in building construction, which has occurred during the last thirty years, due to the introduction of steel and reinforced concrete, to the vastly improved methods of sanitary services, and to the invention of new and improved building methods and materials, continues at the same rate in the future—and who shall say that it will not?—no Act of Parliament can be kept up to date unless wide discretionary powers are given to those who administer it. In the use of these discretionary powers, complex and inelastic methods are almost bound to creep in, and while a relaxation of provisions in the Act suitable for the time it was passed may be granted, this is apt to lead to further restrictive regulations which were not only not contemplated in the Act, but are in many cases unnecessary.

This deputation suggests that as a first essential the law in London ought to be as susceptible of constant revision as in the provinces; otherwise it will become out of date almost as soon as drafted. We are conscious that a great deal has been done towards simplification and uniformity of control in the limited field open to the Ministry, through the model by-laws and otherwise, and we see no reason why statutory revision should not now be considered by Parliament to bring such control as is deemed necessary in the public interest into tune with the times, afford all local authorities a guide to securing public safety and health, and simultaneously give the industry a chance to develop as other industries by uniformity of practice and standardization.

The Building Industry Council of Review was recently formed to investigate and report on the lines upon which a rationalization of the building industry may be achieved, but we feel it necessary to emphasize that the reorganization and readjustment of the industry is rendered difficult, if not impossible, so long as the law is not co-ordinated for the whole country.

The building industry represents not only a vast field for employment, but building costs are a first charge upon every form of commercial and industrial activity, and in assisting the industry to operate upon business lines rather than upon too rigid a regulation basis, the Government can make a valuable contribution to the reduction of unemployment and clear the way for the industry to deal with the other vital aspects of building such as reorganization, standardization and finance with which it is faced.

Those bodies which now urge a reform and which are represented today have set up a Central Committee to co-ordinate the reports and recommendations at their disposal and are prepared in conference with your Ministry to suggest lines upon which a solution of many of the existing difficulties and anomalies may be found. Their investigations have to a great extent been directed to close scrutiny of the conditions obtaining in the London area where all building is controlled by Act of Parliament administered by different authorities, is subject to varying interpretations, and results in a degree of confusion and lack of uniformity which it is necessary to dispel.

Miss Susan Lawrence has stated in a letter addressed to Mr. A. M. Samuel, M.P., that representations from professional societies in regard to the London building regulations have been lacking. The R.I.B.A. have been urging the amendment of the London Building Acts on the London County Council for ten years, and representations were made jointly by the R.I.B.A., the Institution of Civil Engineers, the Institution of Structural Engineers and the Surveyors' Institution.

This deputation is of the opinion that building legislation should now be considered on a national basis and should be confined as far as possible to broad questions of principle.

If the Government is in agreement with our views, the building industry would be prepared to set up a Technical and Economic Advisory Council which would review and report upon all aspects of building construction and control which are from time to time deemed necessary to meet the constantly changing conditions. Such a Council would make the fullest use of our Research and Technical and Standardization Institutes and would maintain a constant touch with the Ministry with a view to giving every assistance in maintaining a flexible and up-to-date code. At a time of such serious unemployment and industrial distress we urge that this vital question is ripe for review by the Government.

The Minister said in reply that he gathered that the difficulties of which the deputation complained were experienced chiefly in London and that comparatively little difficulty had been encountered in the provinces. But in so far as Scotland was concerned he would see that a report of the proceedings was sent to the Secretary of State. As regards London, the matter was, of course, one for the London County Council to consider. Obviously he could not express any definite opinion until he had heard the views of the Council, but he could certainly assure the deputation that he so far sympathized with their representations that he would himself undertake to discuss the position with the London County Council.

LETTERS FROM READERS

Group Specification

SIR,—I gather that both Mr. Lynn C. Doyle, in your issue of July 16, and "Student" in your issue of July 23, are obviously acquainted with only one type of specification.

It is common knowledge that one of the functions of a specification for a contract without bills of quantities is to enable an estimate to be formulated, and that where bills of quantities form the basis of the contract this function is relegated to the bills of quantities. It will be seen that in the former case it must continue to function as an instrument in estimating, whilst in the latter case this function is obsolete; therefore a different method of treatment is not only necessary but is essential.

What has been said with regard to a contract without bills of quantities applies in a like degree to a contract with bills of quantities, that do not, however, form the basis of the contract. Clause 3 of the Schedule of Conditions of Contract of the R.I.B.A. Form where bills of quantities do not form the basis of the contract says the estimate may be "sealed" or not "sealed," implying that it is optional on the part of the contractor, and this estimate is for the sole purpose as provided under clause 13, which is that of valuing the *authorized* variation only; in effect, the bills have no bearing whatsoever upon the contract.

It is the drawings and specification that constitute the "contract works," consequently everything ought to be shown thereon or described therein, for the estimate, in a legal sense, is based upon these as if the bills of quantities did not exist. The wording of this clause is altogether different from that of clause 3 in which bills of quantities form the basis of the contract, and the inference is that the framers of these clauses knew precisely what they were about and understood thoroughly their business. Contractors of nous also know their business, for they leave severely alone those contracts in which bills of quantities do not form the basis of the contract.

Again, clause 28 with reference to "Provisional Sums," which is the same in both types of contracts, is very skilfully worded. No mention is made therein of the bills of quantities, but the word *specification* is named, as is also the contractor's original *estimate*. There is here no ambiguity, nor need there be any confusion about the meaning of this clause and its effect. If, in the bills of quantities which do not form the basis of the contract, the "Provisional Sums" differ—more or less—from those enumerated in the specification, it is those in the specification that are taken into account in the adjustment of the *authorized* variations. But where the bills of quantities form the basis of the contract then it is those in the bills of quantities, whether more or less than those in the specification, that are taken into account in the adjustment of *all* variations, because the contract provides for this in clauses 12a and 13.

Whilst errors of any description in the specification have no effect upon the amount of a lump sum contract, once that is signed, those errors of omission in the specification in contracts *without* bills of quantities operate prejudicially to the contractor. But in the case where bills of quantities *do not* form the basis of the contract the issue is confused and complicated by this document, inasmuch as any errors in the specification may have been rectified in the quantities; and, on the other hand, the quantities themselves may contain errors, and these are not rectifiable by the specification. Hence, the contractor takes upon himself the responsibility of any errors in the quantities, whether for or against himself, because by the terms of the contract he is compelled to adhere to the specification. In the case where bills of quantities *form* the basis of the contract, any errors therein are rectifiable under clause 12a in the conditions of contract, so that neither party to the contract suffers loss or gain by errors in the specification.

In law, the written contract takes priority over the other documents. Anything contained in these documents that is not in agreement with the contract is null and void: for the simple reason that the contract embodies the intentions of the parties precedent to the signing thereof, and the parties may be said to be of one mind as to terms and conditions of the contract when signing.

Seeing that you cannot construe the specification to mean other than what the contract says it means, both in intention and in fact, the obvious thing then to do is to frame the specification to suit the type of contract. It matters not in what manner the specification is written—the items of works in trades or sectionalized as in the group system. These are only matters of convenience. The group system would be very inconvenient where there is much subletting of the contract.

T. SUMNER SMITH

A Laundry Floor

SIR,—"C.H." in your issue for July 23, page 138, asks for advice on the construction of a good cheap flooring for a laundry which will have a considerable amount of heavy wear.

If it is required to have a floor more dustless and resistant to wear than granolithic, there seem to be several types of proprietary floorings which should answer the requirements of your querist. He has only to look at the advertisement pages of THE ARCHITECTS' JOURNAL to see announcements of a number of modern surface coverings for floors of this description.

R. HUTCHINGS

The Bargate, Southampton

SIR,—Astragal, in your issue for July 23, suggests that, whatever is done at Southampton to ameliorate the traffic problem, it would be a mistake to isolate the Bar by cutting away a part of the old town wall on each side of it. When I was consulted by the civic authorities on the traffic problem, I expressed the opinion that whatever could be schemed for the Bargate would be only a partial solution of the traffic problem. For a real solution it was essential to find an alternative and adequate route to take the through traffic *before* it entered the old town.

This alternative route should follow the line of the old ditch, or moat, which formerly skirted the town wall on the east side of the old town. The line is still preserved by two paved walks; one of these, "The Walls," ran at the foot of the town wall, while the other, "Canal Walk," was evidently a path on the far side of the moat. If these two walks be taken as the line for the new street it would be possible to make two "one-way" streets of adequate width, with a garden strip, about fifty feet wide, running along the whole length in the centre. By this means the magnificent chain of parks to the north and east of the old town could be connected by a "parkway" to the small park adjoining the docks, the line of the old wall could be established, and the old town itself would acquire a fresh interest, because it would be possible to walk right round it—alongside a garden strip—if the scheme for the Bargate and north side is carried out as suggested.

With regard to the Bargate itself, it will be seen from the foregoing observations that it is of great importance that its essential character as a gateway should be preserved. It is for this reason that I propose that the by-pass roads, east and west of it (which are essential to meet modern needs), should not cut clean through the walls, but be arched over. These arched openings will be frankly modern, some 20 feet wide for the roadway, with a smaller opening for pedestrians. But the line of the top of the wall will be preserved

and will, I think, give a sufficient unity between the wall and the gate to preserve its significance and interest.

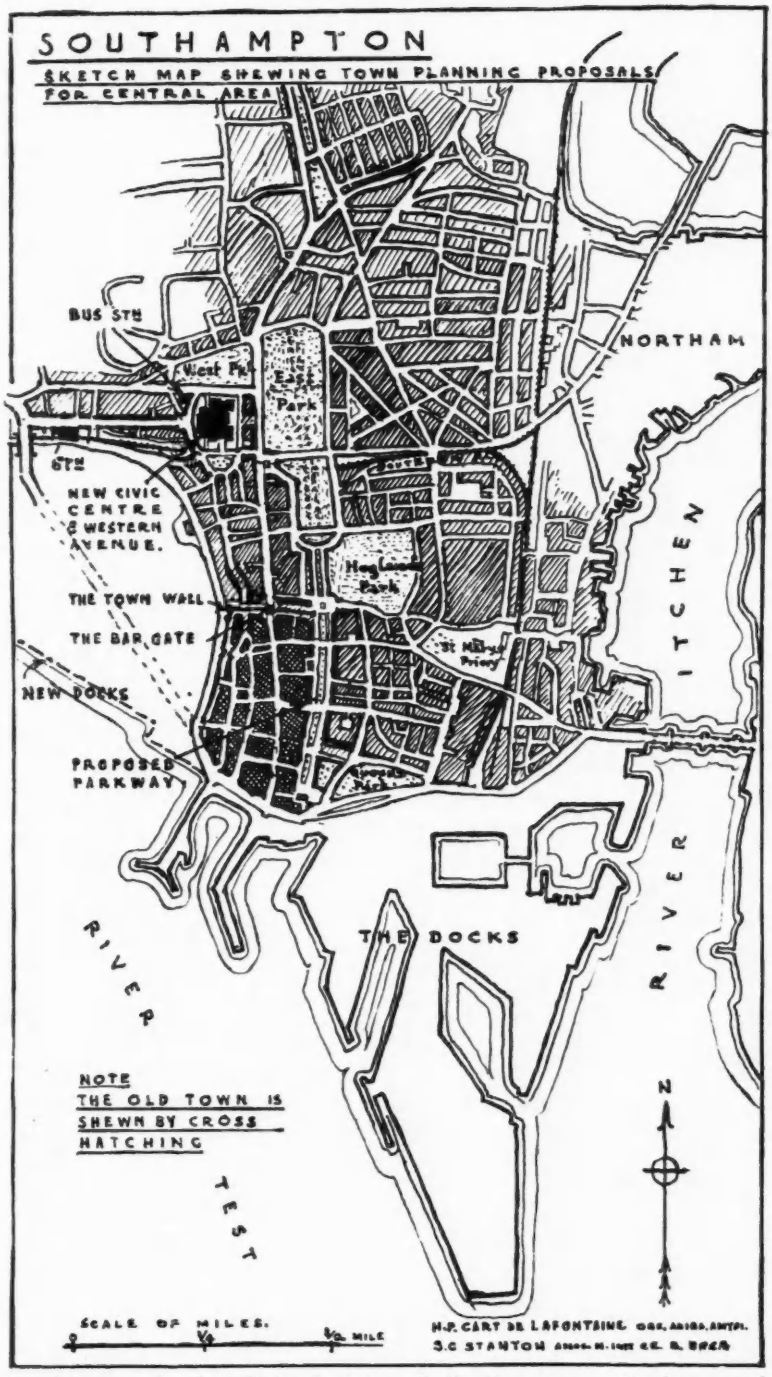
The matter is one which has long engaged the attention of the municipal authorities, and various suggestions have been made by local architects and others; many of them are extremely interesting and nearly all are worthy of careful consideration. It is therefore much to be desired that any suggestion I have made should be fully criticized and debated, so that any defects may be disclosed and any useful suggestions made use of before a final decision is arrived at.

I think I may say that through the public-spirited activity of the Hants and Isle of Wight Society of Architects and the Civic Society of Southampton there seems every reason to anticipate that the whole problem of the re-planning of the central area (of which the Bargate problem is only a part) will be examined very carefully at no distant date.

It is certain that the Corporation are fully aware of the importance of the matter, and will probably defer any decision until a model (illustrating the effect of the proposals mentioned in Astragal's comment) is before them.

I write somewhat fully as it is desirable to correct the impression that the city fathers are not alive to the importance of the problem, though at the moment we are not entirely in agreement as to the best way of solving it.

H. P. CART DE LAFONTAINE



Sketch map of Town Planning Proposals for the central area of Southampton (see the accompanying letter from H. P. Cart de Lafontaine).

Cost of Houses

SIR,—I have read with amazement the letter of L. E. Williams on the urgent problem of working-class housing, which appeared in THE ARCHITECTS' JOURNAL for July 16 last.

In my extreme ignorance I have imagined that one of the prime functions of the architect was to instill into the mind of the ordinary man the true meaning of beauty—a beauty confined not only in the conception of great buildings, but extending to the things and the thoughts of everyday life, even to that lowly thing the working man's house. In this latter, even now, the great and universal big business of decent living is carried on, in spite of the inhabitants' so-called inferior status.

Can any true architect—a "chief worker"—feel happy that the efforts of his great profession should be nullified by an attitude of mind which blandly consents to such a low standard of living for his fellow-workers that these cannot even hope to grope towards the twin lights of beauty and decent thinking?

If true architects could feel happy in these conditions, then would I be proud to sign myself, with due acknowledgments to Astragal, "A born poacher, an engineer." I am, however, merely an engineer, and still remaining optimistic, am, etc. ROBERT W. STANTON

Settling-Up Honeywood: xi

SPINLOVE SCORES AGAIN

BY KARSHISH

(H. B. CRESWELL)

Sir Leslie Brash, the owner, has complained of various defects in the house, of which failure of the inside paint is alone serious. He has also raised an outcry at the bill of extras which Spinlove, his architect, is negotiating—as it is called—with the builder, Grigblay; and has "intimated," with unholy unction, that Spinlove will serve his own interests best by favouring his client rather than the builder. Spinlove's "negotiations" have included a fruitless struggle to force Hoochkoft, who supplied the facing bricks, to disgorge an overcharge; or, alternatively, to make the builder responsible for paying it.

GRIBLAY TO SPINLOVE (PERSONAL)

Sir, 8/7/26.

I have been looking into this matter of Hoochkoft's facings. You will understand it is no business of ours what understanding you came to with them, but as you cannot agree the matter I venture to drop you a hint that you have no occasion to argue it as those reds you objected to were place bricks that the fire hadn't properly reached and, as you know, some that got built in began to go almost at once. Hoochkoft cannot hold out that those soft reds were fit for what they sold them for, which is high-class facings—and which was their warranty or I am much mistaken. I enclose just a little statement that perhaps you may be interested to see and to have a word with Messrs. Hoochkoft about, but as I say it is no business of mine. It is lucky for them you had the softs thrown out or where would they be now!

Apologizing for troubling you but thought you might like the information.

Yours truly,

GRIGBLAY TO SPINLOVE (ENCLOSURE)

SIR LESLIE BRASH
DR. TO MARSTON GRIGBLAY, BUILDER

EXTRAS ON FACINGS SUPPLIED BY MESSRS. HOOCHKOFT & CO., LTD.

	£	s.	d.
Paid Messrs. Hoochkoft for picking out defective under-burnt bricks ..	92	0	0
Paid Messrs. Hoochkoft for 1,050 defective bricks delivered and not used, at 147s.	7	14	4
Picking over 7,000 bricks for throwouts, at 28s. ..	9	16	0
No. 87 cutting out defective under-burnt bricks built into wall-face and making good, at 2s.	8	14	0
	£118	4	4

It is a pity that this view of the matter did not occur to Spinlove before, but it has to be remembered that his objection to the under-burnt bricks was that he did not like the colour of them. Defects only appeared in a small number which were, by oversight or misunderstanding, built into the walls; and as Spinlove held Grigblay responsible for this, and required him to cut out and replace, Hoochkoft's liability did not obtrude itself.

SPINLOVE TO GRIGBLAY

Dear Mr. Grigblay, 9/7/26.

Thank you for your letter and enclosure. I will write to Hoochkoft, but at the same time I cannot agree that you had instructions from me to pay their extra charge, and I do not depart from my decision that you are responsible for cutting out and making good defective facings, for they were built in contrary to my orders.

Yours truly,

We may suppose that Spinlove does not want to relinquish his claim against Grigblay, but this is not a happy occasion upon which to insist on it. Bloggs, the foreman, did his best to interpret Spinlove's instructions in throwing out the red bricks, and it was his misfortune, and not his fault, that some of those he built in began to decay.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 9/7/26.

As I explained in my last letter, I held back the last certificate until Grigblay should have proved that he was entitled to it. Your honouring the certificate does not prejudice your right to challenge Grigblay's charges, but in any case responsibility for drawing the certificate is mine. Under the terms of the contract Grigblay can claim payment of all sums certified, and as he has been kept waiting a long time I hope you will make it convenient to send him a cheque at once.

I have some difficulty in understanding the drift of your letter. I do not think you need assurances that I am watching your interests closely to the best of my ability. It is also my duty to see that you are not called upon to pay any charge which is not properly substantiated. You cannot mean to suggest that I should unfairly interpret the contract against the builder in your your interests, and disallow his just claims, in order to win your favour; yet that is the impression your letter gives. Will you, therefore, be so good as to explain what it is you had in mind.

Yours sincerely,

Here, again, what are we to understand? Has Spinlove failed to see the purpose of Brash's letter, or has he perfectly understood it and framed such a reply that Brash can make a graceful retreat? As Spinlove does not respond to, but rather repulses Brash's pose of cordiality, the latter explanation is probable; but it may be that, without knowing exactly what Brash intended, Spinlove so disliked the implication of the letter that he responds to a healthy impulse and asks Brash what the devil he does *mean.*

SPINLOVE TO HOOCHKOFT

Dear Sirs, 12/7/26.

I have just received from the builder the enclosed account of his claim against my client in respect of defective facing bricks supplied by you, and shall be glad to receive your cheque drawn in favour of Sir Leslie Brash for the sum of *£118 4s. 4d.* forthwith, as the matter is of long standing and the account is now being closed.

Yours faithfully,

Appearances are that Spinlove took an opportunity to consult some longer head than his own on the drafting of this letter—perhaps that of Mr. Tinge, the quantity surveyor. The words he commonly wastes are conspicuously absent, and some good influence has also restrained him from his characteristic digressions in self-justification.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 12/7/26.

It is scarcely necessary for me to intimate that nothing was farther from my intentions when I indited my last communication than to suggest that you should "unfairly interpret the contract" or "disallow the builder's just claims." As you very naturally divine, I certainly have no such desires and would be the last person to consent to any such nefarious proposition. I am a gentleman who has always disbursed his just liabilities without demur and *up to the hilt* as it is sufficiently self-evident I shall be required to do on this occasion by Mr. Grigblay with the due approbation of my architect. At the same time I apprehend that it is within the prerogatives of the employer to indicate an aspect of the situation which it is clearly advantageous for his architect to comprehend. A judicial deportment is obviously an appropriate desideratum for a young gentleman engaging in the sphere of professional activities.

It will, I anticipate, signalize to you that I am pliably amenable to appeals of logical reason when I intimate that I have today transmitted cheque for one thousand pounds to Mr. Grigblay. I also enclose cheque for £60 in satisfaction of your own fees in respect of that disbursement.

Yours sincerely,

Brash appears to be sulky, and even a little embittered, at being taken up by Spinlove. His letter is a clever one: although it disclaims the sinister implications of its predecessor it, in fact, stresses them.

HOOCHKOFT TO SPINLOVE

Dear Sir, 13/7/26.

We do not understand why Mr. Grigblay's account with Sir Leslie Brash has been sent to us, and return it herewith as we can only suppose your suggestion of a cheque in settlement is intended as a joke. The matter is ended so far as we are concerned.

Yours faithfully,

SPINLOVE TO HOOCHKOFT

Dear Sirs, 16/7/28.

I have to point out that the matter of the defective facing bricks supplied by you is by no means ended, and is very far from being a joke so far as you are concerned.

The facts are that some of the soft, bright-red, under-burnt facings included by you in the early consignments, and built into the walls, almost immediately began to decay and, to the number of eighty-seven, had to be cut out and replaced.

As you neglected to pick out the under-burnt bricks from early consignments totalling 7,000, this work had to be done on the site by the builder.

The under-burnt throwouts were unusable and had to be replaced by sound bricks to the number of 1,050.

The charge you made for picking is not allowable as the bright-red under-burnt bricks were unsuitable for facings.

Mr. Grigblay's charge is the sum he paid you for picking, together with the cost of picking over in your default. The other charges are based on time and materials, and the amount paid you for defective bricks that could not be used.

The bricks offered by you, ordered by me and invoiced, are "facings"; you were under warranty to supply facings, and Sir Leslie Brash claims from you £118 to reimburse him for losses directly due to your breach of warranty. I return the account and have to repeat my request for cheque in settlement forthwith.

Yours faithfully,

It is difficult to believe that Spinlove settled the draft of this letter. The probability is that some architect friend of wide experience, or a lawyer, gave him guidance. It is to his credit that he realized he was on delicate ground; for it is most difficult in positions such as this to be lucid, and to keep to the essential facts, and to avoid prejudicing the position, or actually making it untenable, by accidental admissions or inconsistencies.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 16/7/28.

Thank you for cheque. I enclose formal receipt. I am glad you have sent Mr. Grigblay a cheque as he had grounds for feeling aggrieved at the delay.

I am obliged for your reply to my letter, but I still do not completely understand what it is that you expect of me. You seem to express dissatisfaction with my conduct of the business of settling Grigblay's account. I can only assure you that I will spare no pains to see that no improper charge is included.

Yours sincerely,

HOOCHKOFT TO SPINLOVE

Mr. Spinlove, 17/7/28.

We now understand your new move to make us refund in order to cover your own liability to your client by now saying bright-reds were defective; but unfortunately you *told us nothing of this at the time*, but waited till your other trick failed, knowing that nothing was wrong with the bricks; and if you did have a few cut out they were sound ones and only done to bolster up a false claim against us by holding out they were defective when they were not; but very likely *none were cut out at all*, and this is just a dirty job to put responsibility on to us and get a refund because your other trick of saying you never ordered picked has gone wrong.

We return you Grigblay's account and suggest try again as this has not come off and something better is needed to humbug us.

Your most obliged humble servants,

Such contemptible devices as Hoochkoft, by return of post, here ascribes to Spinlove, could scarcely enter their heads if they did not themselves habitually practise them. Its abusive diction and general likeness to the barking of a dog is common in the wider fields of business correspondence. Hoochkoft for the first time honours Spinlove by meeting him as man to man, and Spinlove should take heart.

SPINLOVE TO HOOCHKOFT

Gentlemen, 19/7/26.

I do not know whether you intend your letter as a final disclaimer, but as there is the testimony of the builder, foreman, bricklayers and others to support me, perhaps you will prefer to reconsider your position before I advise Sir Leslie Brash to take action to enforce his claim; in which case I do not think such letters as that you last sent me will help you. I enclose the account and await your reply.

I am, Gentlemen,

Your humble servant,

This diplomatic answer was certainly not drafted by Spinlove. It is clear he had guidance.

HOOCHKOFT TO SPINLOVE

Dear Sir, 22/7/26.

Your favour of the 19th inst. with enclosure and previous correspondence has been laid before our chairman and managing director, Mr. Eli Hoochkoft, who proposes to wait on you at any time convenient to your good self for the purpose of amicably settling the matter to your satisfaction in a personal interview.

We may say that we were naturally taken aback at the contents of your previous letters, as the matters referred to were quite new to us and the official who dealt with the correspondence was under a misapprehension. Mr. Hoochkoft tenders you his apologies for same, although our suggested explanations were not intended in any way as a criticism of your good self.

We are, dear Sir,

Yours faithfully,

Delicacy of touch is not a strong point with Hoochkoft; in fact, one of the few disadvantages of having a hide like a rhinoceros is that you assume everyone to be sheathed with an insensibility equal to your own. Hoochkoft are quite unaware that their ingratiating affability presents the picture of deceit spurred by funk. The trick by which, after one bluff has failed, they approach the subject de novo *from a new angle, by a pretence of referring it to higher authority, is a very old one.*

SPINLOVE TO HOOCHKOFT

Gentlemen, 28/7/26.

I confirm arrangement by telephone that Mr. Hoochkoft will call to see me here at noon on Wednesday.

I am, yours faithfully,

MR. ELI HOOCHKOFT TO SPINLOVE (AUTOGRAPH)

Dear Mr. Spinlove, 5/8/26.

As promised I have carefully considered the position of my firm in the light of our friendly talk and have responded to your kind offer to entertain a payment in settlement and now enclose Treasury notes to the value of £25 in the belief that this will meet your favourable ideas. Will you kindly initial for receipt of this letter to the bearer who has been instructed to deliver it into your hands?

I trust that in the future I may be honoured by your esteemed favours, when I will make it a personal duty to see you receive complete satisfaction in any orders you may entrust to us and that no irregularity as that complained of occurs.

Believe me, dear Mr. Spinlove,

Yours truly,

Eli is trying to bribe Spinlove; a bribe being the giving to, and acceptance by, an agent of any gift or consideration, as an inducement to the agent to do, or forbear from doing, any act in relation to his principal's affairs. Although it is a thing the slightest hint of which all right-minded men shrink from as intolerable to their self-respect and a violation of the rudiments of personal honour, yet bribery, in one form and another, is a common usage for greasing the wheels of business, and all architects sooner or later become aware of its detestable implications. Many men whose fields of activity involve them in the practice, excuse it by the cynical sophistry that all human actions are swayed by a coveted reward, and that in essence there is no difference between actions framed in ambition for social and political advancement or the favour of powerful men, and those where the goal is more directly money—just as it has been argued that all motives are at bottom selfish, or that there is no such thing as a bald man because it is impossible to say at what point, when single hairs are plucked from the head, it becomes bald.

We lately saw Brash holding out inducements to Spinlove to betray his trust which, though morally bribery, would scarcely have made him guilty at law; but this attempt by Hoochkoft is a particularly flagrant example of the crime—for crime it is. To take or give a bribe is an offence punishable by a fine not exceeding £500, with or without imprisonment not exceeding two years. If Eli were brought before me, I should award him a fine of one hundred pounds with nine months in the second division for undisturbed meditations on bricks. He is, however, unlikely to be brought before anyone, for the nefarious understandings he seeks to establish are reached by each party advancing towards the proposal by hints and innuendos to which either can readily give an innocent meaning if his overture wins no response; and it is thus usual for the illicit agreement to be reached tacitly and by implication, without anything being said that would entitle either party to affirm that a bribe had been offered or asked by the other.

Thus we find Hoochkoft sending money to Brash's agent in fulfilment of an apparently honest agreement for settlement of Brash's claim: he could—although it is doubtful if any jury would agree—hold out that he had no intention of bribing. He also, it will be noticed, makes it safe for Spinlove to pocket the money and decide, for any reason he chooses to give, that Brash's claim is untenable. There is the evidence of no third person; and there is no record, such as a cheque or bank notes would set up, that the money has changed hands. There is nothing but Hoochkoft's oath that he sent Spinlove the money against Spinlove's that he never received it, and vice versa, *to establish the fact; and as both would be equally guilty and the arrangement meets the desires of each, there would be no likely need for either of them to thus add perjury to their conspiracy to plunder Brash.*

SPINLOVE TO MR. ELI HOOCHKOFT (REGISTERED POST)

Sir, 7/8/26.

I am not prepared to recommend Sir Leslie Brash to accept any such disproportionate sum as the £25 you sent me in settlement of his claim against you.

As your offer is in no way adequate to your professions at our interview, I have to say that the sum I am prepared to recommend my client to accept in full settlement, is the amount paid to you in error by Mr. Grigblay for picking out defective bricks, namely £92; and I shall be glad to receive, *not cash*, but your *cheque* for this amount *drawn in favour of Mr. Grigblay*, on receipt of which I will return your Treasury notes value £25. In the event of your not accepting this offer the matter will go out of my hands.

I am, Sir,

Yours faithfully,

The reason Spinlove did not send back Eli's Treasury notes by the messenger who brought them is, probably, that he could not at the moment make up his mind how to handle the matter. It is just as well he did not so return them, for it would have been a gesture of wiping out the interchange and left things as though Hoochkoft had never offered the affront. As it is, Hoochkoft is likely to have had an uneasy feeling in regard to what may have been happening in the enemy camp in the three days' interval between his sending the notes and Spinlove's reply. This uneasiness will be increased by Spinlove's action in holding the notes for return, instead of putting them to Hoochkoft's credit in his account with Brash. Spinlove clearly has someone guiding him in this ticklish business; and perhaps the awkwardness of dealing with the cash, and a wish to enforce decorum on Hoochkoft and hold the whip hand over him, decided his action.

It still remains unexplained why such a practised rogue as Hoochkoft should have concluded that Spinlove was open to bribery. It is clear that he was misled by Spinlove at their interview; and it is also clear that Spinlove had no intention of so misleading him. We may suppose, therefore, that it never entered Spinlove's head that Hoochkoft's aim was to find out whether he was corruptible and, if so, his price; and thus Spinlove neither encouraged Hoochkoft to show his hand nor, in his complete unconsciousness, warned him, by word or look, that his task was hopeless. It is easy, on this supposition, to understand that Hoochkoft's offer of a money payment to Spinlove as "a sum in friendly settlement"—or however else he disguised his true meaning—was accepted in all good faith by Spinlove as a proposal for settlement to Brash, while Hoochkoft supposed Spinlove was veiling the acceptance in the same way that he himself was veiling the proposal. The extreme innocence of Spinlove, in fact, gave Hoochkoft, who is clearly a lumbering, obtuse fellow, the idea of excessive subtlety and wariness.

It is to be noted that no sum was named at the interview. The position was threshed out, and Hoochkoft went off to consider the sum he would offer in settlement, and make an offer.

HOOCHKOFT TO SPINLOVE

Dear Sir, 10/8/27.

With reference to Mr. Hoochkoft's interview with you on August 4th, we now enclose cheque drawn in favour of Mr. Grigblay for the sum of £92 as refund of disputed charge for picked facings, which you state was paid in error. The acceptance of this sum to be understood to be in full settlement of Sir Leslie Brash's claim against us as per enclosed account and which is in dispute.

Yours faithfully,

And so Spinlove has won! He has made a good fight, in which his native tenacity and his vanity have probably served him better than his devotion to his client's interests.

There is no doubt that Hoochkoft's false step in attempting to bribe Spinlove has precipitated his decision to pay up and so avoid any chance of litigation and exposure. It is to be noticed that Hoochkoft ignores Spinlove's letter and sends the cheque as though in fulfilment of an understanding come to at Hoochkoft's interview with Spinlove. The object of this is to cover their tracks, so far as may be, and avoid any official record of the illicit project.

[NEXT WEEK: XII—DRY ROT APPEARS]

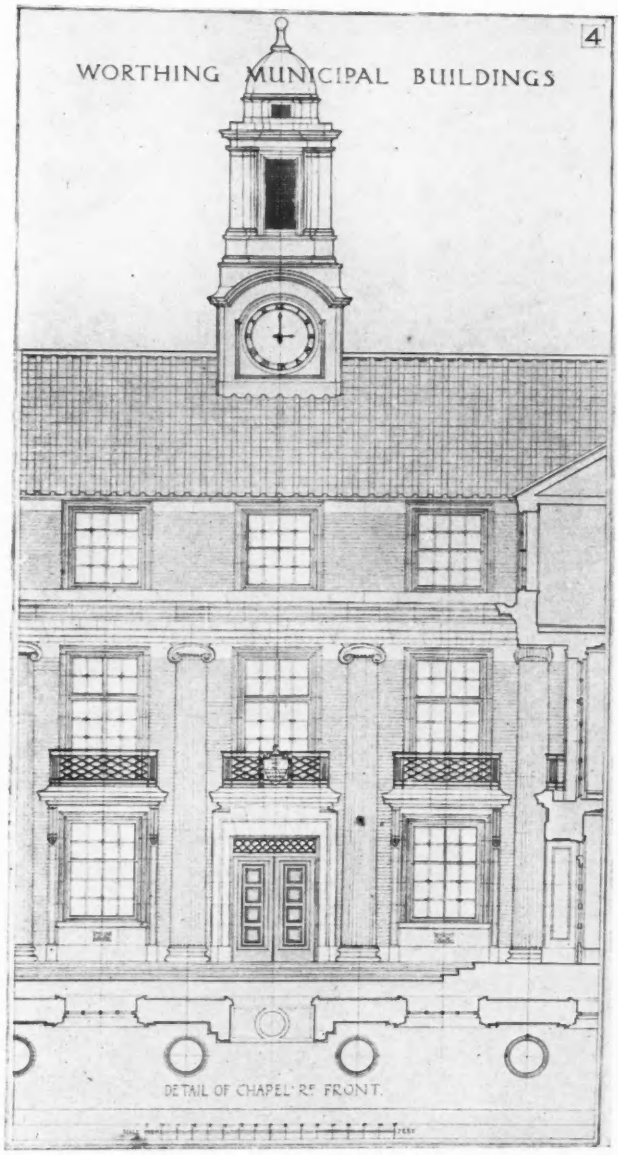
WORTHING MUNICIPAL BUILDINGS COMPETITION

FIRST PREMIATED DESIGN: BY CHARLES COWLES-VOYSEY

First premium (£350): Charles Cowles-Voysey, F.R.I.B.A., London. Second premium (£250): Percy Tubbs, Son and Duncan, F. & A.A.R.I.B.A., and S. Rowland Pierce, A.R.I.B.A., London. Third premium (£150): Willink and Dodd, Liverpool. Fourth premium (£50): William A. Funnell, Purley. Commended: V. O. Rees, A.R.I.B.A., London.

NO fewer than forty-three designs were submitted in the competition for designs for the municipal buildings proposed to be erected on a site with frontages to Chapel Road and Stoke Abbott Road, Worthing. The competition was promoted by the Worthing Corporation, and restricted to architects of British nationality.

The programme provided for the erection of the municipal buildings, a county court and clinics with, in addition, the reservation of a site for an assembly hall, the erection of which will not at present be proceeded with. It was thought desirable that the principal entrance to the municipal buildings should be in Chapel Road and the principal entrances to the county court and assembly hall from Stoke Abbott Road. Access is also available from Richmond Road to the western portion of the site by a 10 ft. carriageway.



Detail of the centre feature of the main, Chapel Road, front, showing the principal entrance to the municipal buildings. On the first floor are the balconied windows of the committee rooms.

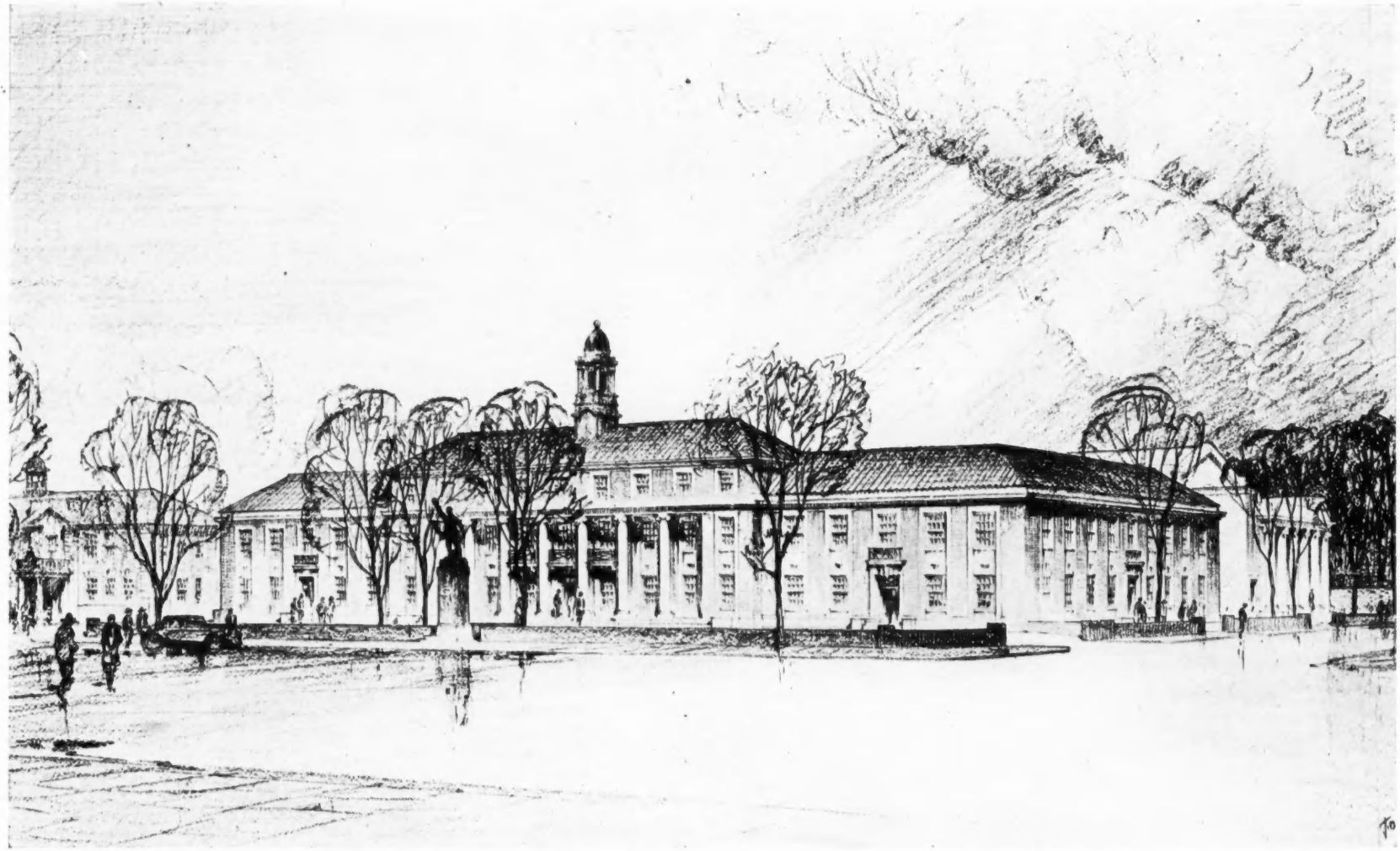
The general design of the buildings, both internally and externally, was left to the competitor, but it was stipulated that it should be dignified and restrained, and competitors were asked to bear in mind that the public library and museum adjoining are the property of the Corporation. It was requested that the design should rely on good proportions rather than on elaborate decorations and detail, which was not desired.

Stress was laid on straightforward and economical planning, with rooms and corridors well lighted and ventilated, and with due regard to escape in case of fire or panic. Towers and domes were to be avoided.

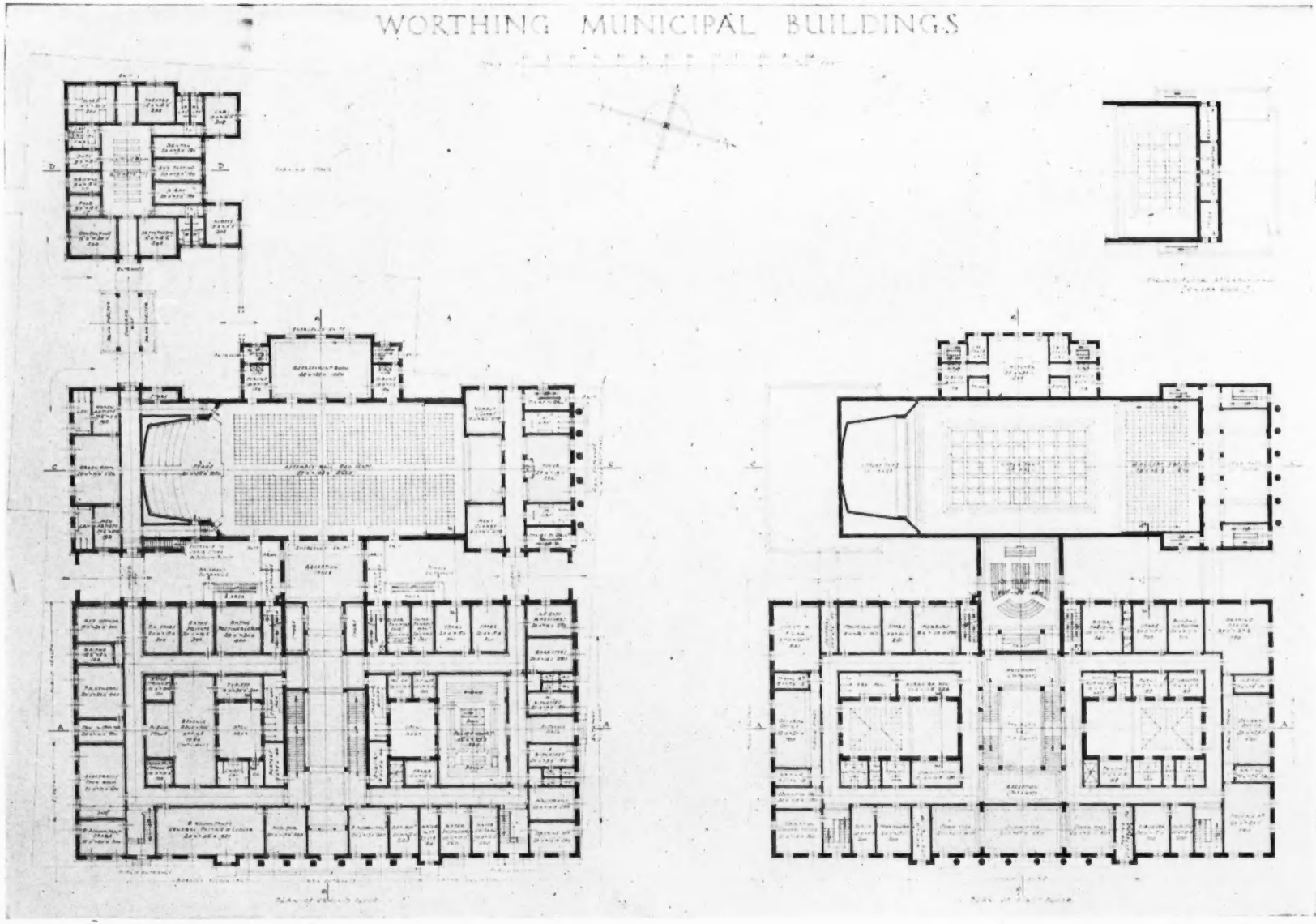
Competitors were asked to consider whether a space for the parking of the private cars of members of the Corporation could be provided on the west side of the buildings with approaches from Stoke Abbott Road and/or Chapel Road on the south side of the site; also the provision of a parking space for the assembly hall.

The total cost was not to exceed £100,000, this sum not to include the layout of the forecourts.

Mr. Henry V. Ashley, the assessor, in his award, says: "The programme set was a complex one, involving the planning and design of municipal buildings, police court and clinics, and with an assembly hall in addition, and while it should be stated that there are good points in many of the designs sent in, I am entirely satisfied that the scheme placed first by me attains the best all-round degree of excellence of any submitted, both as regards the planning of the several buildings and the architectural design thereof; it is eminently suited to its purpose and to its environment."

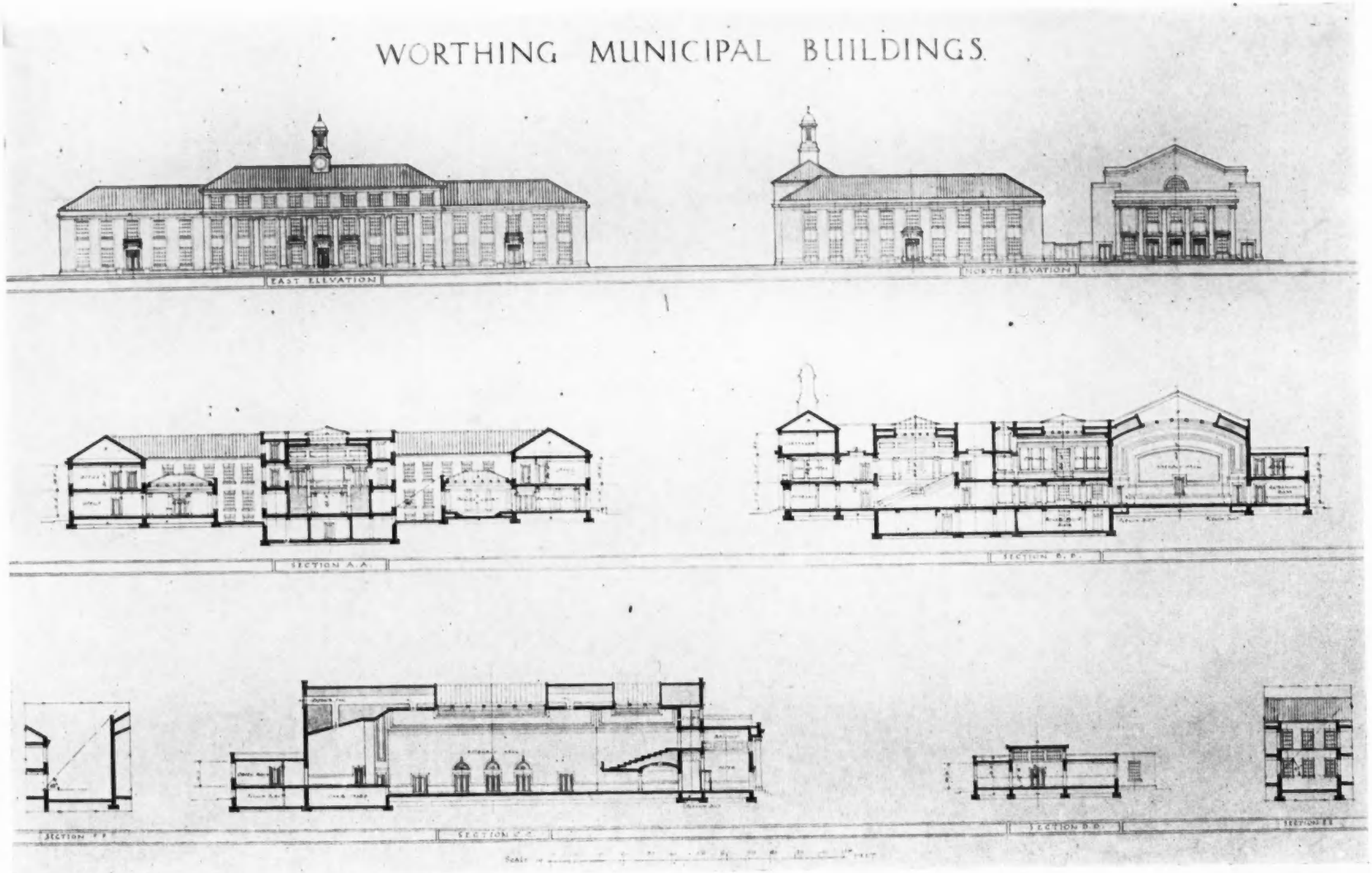


The architect's perspective drawing of the main, Chapel Road, front. The principal entrance, in the centre of the façade, leads into a spacious hall, on either side of which are the staircases to the upper floors. Around this entrance and staircases the municipal offices are planned. On the extreme right of the drawing is seen the main entrance to the assembly hall from Stoke Abbott Road. The drawing shows the war memorial, which now stands at the junction of the two roads, removed to a central position on the main front.



Worthing Municipal Buildings Competition, Winning Design.] [*By Charles Cowles-Voysey.*

Ground-, first- and second-floor plans. In the front portion of the building, devoted to the municipal offices, is the police court, which is served by a separate entrance and hall from Stoke Abbott Road. On the first floor, the council chamber, the committee rooms, and he mayor's parlour are planned on the east and west ends of the staircase. The assembly hall is two stories high. It is provided with a full stage and is equipped for use as a cinema. Behind the assembly hall are the clinics and a parking-space for motor cars.



Worthing Municipal Buildings Competition, Winning Design.] [*By Charles Cowles-Voysey.*

These elevations and sections should be studied in conjunction with the plans on page 205. The east elevation faces Chapel Road, the principal thoroughfare, and the north overlooks Stoke Abbott Road. The municipal offices are planned on the front portion of the site, at the junction of these two roads. Behind, on the north front, is the assembly hall, with its main entrance from Stoke Abbott Road. Although the competitors were asked to include the assembly hall in their designs it will not be built until some future occasion.

QUESTIONS THAT ARISE

Chimney Flaking

H. O. R. writes: "*I have been asked to recommend a treatment for (1) brick chimneys (of an ordinary country residence) which have flaked badly on the weather side; (2) concrete stucco (plain floated face) to outside of house walls which, on examination at a distance, appears sound, but on closer inspection, shows cracks (hair) all over. When these spots are tapped, they are found to be brast, and evidently the space behind is a receiver for water, which, freezing in winter, is gradually separating the stucco from the masonry.*

"*We cannot afford to take the stucco off the wall; and, although the facing of the chimneys with cement stucco would not be a serious expense, we want, if possible, to avoid this also.*"

Your correspondent does not mention the cause of failure. It may be due to frost action, in which case we should advise the raking out of all soft and friable material and the application of a carefully proportioned cement and sand rendering. Efflorescence and crystallization of soluble salts just below the surface of the brick may cause flaking, and an attempt should be made to remove as much of the salts as possible before any treatment is applied. An incrustation of this type may be removed to a considerable extent by washing down with warm water at intervals, allowing a period to elapse in between each washing, during which crystallization may take place. It would then be possible to render the bricks with cement and sand, which should reduce trouble due to frost action or by crystallization of salts.

In both the above cases the use of a bituminous preparation or even an oil paint film may possibly be substituted for the rendering, but it must be borne in mind that the colour and appearance of the chimney would be greatly altered and the treatment would require periodic renewal.

In the case of the stucco, moisture will penetrate through the hair cracks, which are usually produced by the shrinkage of the rendering on drying. The periodic movements of cracks of this kind make it very difficult to seal them effectively, and the only certain remedy appears to be to strip the stucco and replace it with carefully proportioned, sound material, taking suitable precautions to minimize the risk of further cracking.

It is claimed for certain bituminous preparations that they will cover a cracked surface of this kind, but we have as yet no evidence on this point. It is possible, if the cracks are merely hair cracks, and provided no hollow areas have developed between the stucco and underlying brickwork, that a slurry of Portland cement and white hydrated lime may provide a remedy. Such a treatment may be applied with a brush and has quite a pleasant white colour; on cement-rendered walls at this Station a slurry of this kind shows little deterioration after eighteen months' exposure.

SIGNED (FOR DIRECTOR OF BUILDING RESEARCH).

Cesspools

S. W. writes: "*I am building a factory to accommodate fifty people, near the Thames Valley, in a district which is not yet sewered. The soil is of ballast and the natural water line is approximately 3 ft. 6 ins. below general ground level. The sinking of a deep cesspool with brick walls is out of the question; also, there arises the more serious difficulty of making a watertight tank. Asphalting is impossible on damp walling. The question of rain water is easier: for this I am providing a large soak-away. What is your expert's opinion on this question?*"

The storage of sewage can be overcome on a waterlogged site by the use of reinforced concrete tubes. These are manufactured by a number of firms, to various diameters, and are made in lengths of about 3 ft. A cover slab for the top, with loose slab for access, is made; also the bottoms, which are cast, are stocked.

The lengths of tubing have rebated joints and inlets and outlets are cast on.

In the case mentioned by your correspondent, where the water level is so high and there are a large number of persons to provide for, it would be advisable to form two, if not three, of these cesspools, each coupled together with a short length of 4-in. cast-iron pipe.

The ground should be excavated, the water pumped out, a concrete bed laid and one cesspool fixed in position before excavation is commenced for the next. Tubes about 4 ft. 6 ins. diameter and about 2 ins. thick could be used.

It is better to make the cesspool with joints in neat cement, above ground, and, with the aid of sheer legs, sling it into position. Care should be taken to see that each cesspool is loaded immediately it is placed in position and filled with water to resist the pressure of the surface water. Dry rubble should be well rammed around the cesspools and the joints protected externally with a casing of concrete.

In view of the high pressure of the water, if "S. W." decides to use this construction, he would be advised to cover the two or three cesspools at yard level with a reinforced concrete slab, to resist the water pressure. In that case, ordinary cast-iron manhole covers can be used for access to the chambers. W. E. K.

Underpinning

T. A. writes: "*In the majority of specifications, in the description of work in connection with underpinning, new work is specified to be pinned to the underside of the old work, with slates or tiles in cement mortar. Several foremen I have spoken to consider that this is never actually carried out in practice, and that the work is pinned up with cement mortar. Can you inform me whether it is really necessary to pin with slates or tiles?*"

I have found that there are a number of foremen who consider that new work is satisfactorily pinned to old by packing in the top joint of the new work with cement mortar only, and I have seen them do this, using a piece of hoop iron, bent at the end, to wedge the cement into the joint.

This method, however, does not ensure that there are no pockets left in the mortar.

By wedging slates between the old brick or stone work and the cement mortar, which is packed into the joint, the whole is tightly pinned together.

W. A. D.

Party Wall

T. A. P. writes: "*My house and the one next door have a common party wall. The owner of the next house is about to construct a cellar against this party wall. What right of support have I?*"

In the case of houses built together, the right of support is generally one of grant. Usually, however, a man has a right by common law to a natural support of soil; so that if a builder, by excavating too near a party wall, imperils the house, he may be sued for damage; but a special easement of support from adjoining property appears to be the only safe ground on which proceedings of this nature can be taken.

It is not easy to say, however, to whom an old party wall belongs, the general circumstances of most properties rendering it difficult to find out by whom the wall was built.

Under such an uncertainty, the presumption should be that the wall belongs to the two owners as tenants in common, and in such a case, as the query indicates, the builder will be as anxious as the querist that the party wall is properly supported during his operations. A. B.

THE SPECIFICATION WRITER

Cellulose Lacquers for Architectural Decoration

BY MAJOR DENIS J. BURKE

THE steadily increasing employment of cellulose lacquers and enamels in the field of architectural decoration is sufficiently remarkable to warrant a close examination of the qualities of these materials at first hand. Like every other innovation, cellulose lacquers have encountered stout opposition. All sorts of unfounded accusations have been hurled at them, from toxicity to lack of durability; but such opposition is in the normal course of events. Cellulose lacquers and enamels for architectural use have now reached a stage of development which establishes this material amongst the proved successes in decorative media.

Architectural lacquers which are suitable for employment under the varying conditions encountered in their application to plaster, wood, metal, old paint work, large plain surfaces and multi-coloured small or irregular surfaces divide themselves into two classes: brushing lacquers and spraying lacquers.

Brushing lacquers, suitable for use by the professional decorator, are different in composition and working from the brushing lacquers sold in small tins for the amateur painter. They have a very much longer brushing time, a much greater covering power and more nearly approximate in methods of application to a quick-drying enamel. But they have the very important characteristic of retaining all the good qualities of lacquer—that is to say, they combine speed of drying with great durability, washability, brightness of colour, resistance to disinfectants and other damaging fluids, and to penetration by dirt or stains. Bacteria, if deposited on a cellulose finish, cannot grow there because there is no moisture or organic medium to encourage reproduction.

Cellulose lacquers are non-absorbent and can be scrubbed periodically with water containing disinfectants, and, further, they are not damaged by the fumes of formaldehyde or other disinfectant vapours.

The qualities of great durability, ease of cleaning and rapidity of application make lacquers especially suitable to hotels, hospitals, theatres and restaurants, all of which demand of a decorative medium that it should be sanitary, hard wearing, and capable of being rapidly applied.

Every hour that hotels, restaurants or theatres immobilize any of their accommodation for the purpose of decoration means a loss of earning power, therefore speed of application and rapidity of drying is of the utmost importance in any such scheme of decoration. It is interesting to note that the largest firm of caterers and restaurateurs in London finished the interior of their new laboratory building over a year ago with brushing cellulose enamel. They also used this finish on several of their restaurants, kitchens and refrigerating rooms; in all cases the work was carried out by their own staff of decorators and has given entire satisfaction. The G.P.O. has used a brushing cellulose lacquer on telephone booths, letter-boxes, and the new Air Mail letter-boxes in London. In this case also the finish was applied by the ordinary painters. Several offices and flats have been decorated very successfully with brushing cellulose lacquers.

In all these cases the work of decoration only held up the use of premises during the actual time while the decorators were employed, and by selecting suitable times for carrying out the work of decoration it was found possible not to interfere with their normal use at all.

Brushing lacquers of this type dry dust-free in one hour after application, and the room is free of the odour of the solvents in six hours. There is no residual odour in the paint film and the vapours given off during drying do not form an explosive mixture. They are therefore particularly suitable for carrying out a rapid scheme of decoration under the normal conditions of paint application. They do not call for a specially trained staff for their application, no special air-exhausting apparatus is required to remove the fumes, the odour given off during the drying period is mild and completely disappears in about six hours. Consequently offices, restaurants, kitchens, etc., can be decorated at night and used the next morning without the usual inconveniences experienced from wet paint.

Spraying lacquers are used where great rapidity is called for. They involve the employment of compressed-air spraying apparatus, the technique of which has to be acquired, but by this means large wall areas can be covered in a very short time and cellulose enamels applied in this way dry hard within the hour. The advantages of such characteristics are obvious.

There are numerous examples of buildings which have been successfully decorated with spraying cellulose enamels. In the London area the following instances may be quoted: The Prince Edward Theatre, the Brixton Astoria, the Streatham Astoria, the Whitehall Theatre, the Old Kent Road Astoria, Marlow House office buildings, and the Zion Ward, St. Mary's Hospital. In addition, many other banks and office buildings, shops, etc., have been wholly or partially decorated with lacquer. Moreover, it was found that cellulose lacquer was the only finish that successfully resisted the conditions of the hot vapour room in a clinic for the treatment of rheumatism.

In America the Book Cadillac Hotel in Detroit was decorated throughout about six years ago with cellulose lacquers. The decoration has given every satisfaction both in wearing qualities and appearance, and the additional satisfaction that the rooms can be redecorated, or damage to the finish repaired, without loss of a single letting night.

The principal obstacle to the more extensive use of lacquers is ignorance. Admittedly, the application of spraying lacquers requires facilities not normally available to the ordinary decorator, who has neither the knowledge nor the plant nor the staff necessary. However, certain firms of decorators have been specializing in this work for some time past, and the remarkable encouragement that they have met with will certainly cause others to enter this field.

Brushing lacquers are in a very different category, as they can be successfully applied by any decorator who knows his business and has enough intelligence to study the slightly different technique of application.

Much good work has been and is being done by the Borough Polytechnic Institute and the Regent Street Polytechnic Institute to give practical and theoretical instruction regarding the composition and application of cellulose lacquers.

SUMMER brings thunder, and thunder a certain amount of damage to buildings from being struck by lightning. The toll in this country, it is true, is light, and no very elaborate precautions have been found expedient. Those whose attention has, nevertheless, been drawn to the matter, and especially designers of buildings in regions less immune from storms—and there are many such in the British Empire—have but meagre data to draw upon. The subject, in fact, awaits further research, which it has been suggested should be undertaken on the high veld of South Africa, where the results are severely felt. Meanwhile a paper on the subject, recently read by Mr. T. P. Pask, M.I.E.E., before the South African Institute of Electrical

Engineers, has been printed in their April "Transactions," and may be recommended to those in search of information.

Tests on Wired Glass

GEORGIAN wired glass was introduced to meet a demand for a safety glass having a better appearance than the hexagonal mesh variety. This square-meshed glass has recently undergone a series of tests carried out by the Department of Scientific and Industrial Research, and the results show that while not only more artistic it is also stronger both under impact and pressure than the hexagonally reinforced variety.

The glass chosen was ¼-in. wired glass. In the bending test, sheets 24 ins. by 12 ins. were supported at either end and the load applied across the centre.

The Georgian glass broke under a pressure of 175·1 lb., while the ordinary glass broke at 159·6 lb. Under a load of 100 lb. the deflection of the Georgian glass was only 85 per cent. of that normal to the ordinary variety.

The impact tests, which were carried out on sheets measuring 6 ins. by 8 ins., were measured by a weight of ·55 lb. falling from increasing heights, and the results were as follows :

Georgian, smooth side up, weight fell 7·35 in. to break; smooth side down, weight fell 8·95 in. to break.

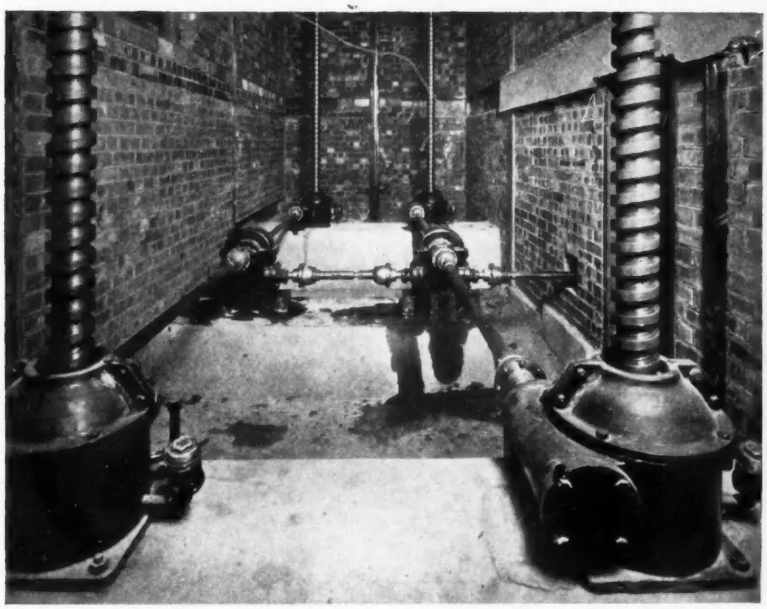
Ordinary, smooth side up, weight fell 6·7 in. to break; smooth side down, weight fell 7·9 in. to break.

One interesting fact emerges from these tests. The glass was rough on one side and smooth on the other, and the reinforcement was placed nearer to the rougher surface. The glass resists best when the reinforcement is nearest to the side from which the blow is delivered, and therefore when fixed in skylights and windows the rougher side should be the external face, or that from which the impact may be expected.

The results of these tests show that improved appearance has not been obtained at the sacrifice of mechanical strength. Once again it has been shown that to be artistic is to be practical.

L. E. W.

OIL-FIRED furnaces have come into wide use for the large central heating equipments of offices and public buildings, and are now being increasingly adopted in the more modest domain of the private house. Heavy fuel oil has been freely available for a dozen years or so, and various methods of adapting it for burning under the special conditions indicated have been devised. The cardinal advantage afforded by liquid fuel is that it lends itself to automatic thermostat control, but the chief problem has been the suitable admixture of air for combustion. For domestic purposes a burner of the rotary atomiser type, operating under an air-pressure of 6 to 9 inches of water, which can be supplied by a small electric compressor, has certain advantages. By this method the stream of air both drives an atomising cone introduced into the path of the fuel and then carries forward the particles of oil to the combustion-chamber in the form of a gas-like mixture. The use of a small-bore jet is obviated, and the orifice is the full cross-section of the fuel supply pipe, ranging from ¼ in. diameter upwards.



The screw-jacks that operate the sinking orchestra stage at the Trocadero restaurant; they are driven by an electric winding engine. The sinking wall is similarly operated by five screws arranged in line at equal intervals.

The "Troc.'s" Sinking Wall

REVOLVING stages, disappearing platforms, sinking orchestra pits, have become, in these days, common requirements for which the architect for a theatre or other place of entertainment may be called upon to legislate. The moving orchestra stage at the Trocadero, and the sinking wall recently installed in the Empire Room, are two applications of the same idea, and a brief description of the construction of the latter may interest the specification writer.

The wall is built up in steel on one large girder, suitably reinforced, and beneath this girder there are five large square-threaded screws, spaced at equal distances along the underside of the girder. These screws pass through a case which contains the necessary crown nut and worm gear for operating them. The motion to the crown nut is obtained by an electric winding engine, similar in design to that employed for passenger-lift service, except that in place of the sheave or wheel which normally sets the lift in motion there is fitted a horizontal transmission shaft which transmits the energy to the worm gear, which in turn is coupled to the crown nuts operating the screws. This piece of apparatus is controlled by a magnetic controller situated near the gear, the buttons operating this controller being fixed at suitable positions in the lobbies at the Empire Room level. As the wall descends, a loose cover which rests normally on top of it automatically fills the hole in the floor through which the wall has passed, thus bridging the gap so neatly that the average visitor to the room does not realize that it is anything but a normal floor over which he is walking.

The wall moves in one piece. It is 67 ft. long by 13 ft. high, and weighs approximately 17 tons. Besides the question of designing suitable apparatus to set in motion so great a mass of material, the problems of silent running, of interlocking and of simplicity in control, had to receive the most careful consideration. The swing doors, for instance, through which people pass from one room to the other, were fitted with specially designed apparatus to lock, electrically, the moving wall, so that, in the event of the doors being pushed open, the wall would be prevented from moving. When in motion, the wall can be stopped immediately if necessary by a push button provided for that purpose.

D

IN PARLIAMENT

[BY OUR PARLIAMENTARY REPRESENTATIVE]

Calton Jail Site

THE question of the Calton Jail site, Edinburgh, was raised in the House of Commons by several members. Mr. Lansbury said that within the last two days it had been represented to him that the Corporation of Edinburgh approved in principle the first scheme prepared by the Office of Works for Government buildings on this site. The Corporation considered that the Sheriff Court House should be erected in the vicinity of the High Street. It was quite clear that no other site but that of the Calton Jail could be acquired within a reasonable time, and as it was essential that the Sheriff Court House should be erected as early as possible so as to free the site of the present buildings at George IV Bridge for the extension of the National Library, the Government had decided that there was no alternative to putting the new Sheriff House on the Calton Jail site.

From the previous Report of the Royal Fine Art Commissioners for Scotland, he had come to the conclusion that no scheme for a Sheriff Court House and for public offices containing sufficient accommodation for the staff for which it was necessary to provide was likely to meet with the approbation of the Commissioners. In view, however, of the representations of the Edinburgh Corporation, he was asking the Royal Commissioners whether, on reconsideration, there was, in their opinion, a reasonable prospect of obtaining a satisfactory architectural scheme on the lines of the original scheme, and, if not, for their views as to the design and setting of a Sheriff Court buildings. On receipt of a reply, it would be necessary to consider whether the proposal to erect Government buildings on the Calton Jail site should be proceeded with. His department was under covenant to obtain the approval of the Edinburgh Corporation to the plans, etc., of any buildings on the site in question, and would in the future, as in the past, avail itself of the advisory services of the Royal Fine Art Commission for Scotland in the preparation of the scheme.

He was not prepared to make the designs of the buildings the subject of open competition. The plans and model of the scheme now under reconsideration were prepared at a very early stage, and represented merely the preliminary ideas. If they represented a finished design, he would have been prepared to make them available to the members of the House and, probably, to the public generally, but he had come to the conclusion, after consideration, that the publication of the designs and of the Report of the Fine Art Commission would only be misleading. He could give the House an assurance that, in the event of a finished design being prepared, full publicity would be given to it at the stage when the plans were submitted to the Edinburgh Corporation. He regretted that, in the circumstances, he could not state when the buildings would be commenced, but no avoidable delay would occur. He was not in a position to express any opinion as to whether the proposed Sheriff Court House would be capable of housing a Scottish Parliament.

Mr. Mathers asked whether the illustration, which had been published in the Edinburgh newspapers, and a copy of which he handed to Mr. Lansbury, was a photographic representation of the proposed new building which had received modified commendation from the Edinburgh Corporation. If so, did Mr. Lansbury think that the building would be in keeping with the surroundings?

Mr. E. Brown: "It is a monstrous factory!"

Mr. Lansbury said he could add nothing to his answer. He knew nothing of the photograph.

Eventually, after much pressure, Mr. Lansbury gave an assurance that no final decision to erect the building on modified plans would be come to before the House was in session in the autumn.

The Roman Wall

Mr. Hurd asked the First Commissioner of Works if he would state whether the Government would guarantee effective protection of the Roman Wall and its surroundings before amending legislation was introduced.

Mr. Lansbury said that the wall and the *vallum* were in no danger. The quarrying had not yet begun and, as the House was aware, he had under preparation a Bill which would give adequate powers for the protection of the wall and its surroundings. It was unlikely that any appreciable amount of quarrying could be carried out before amending legislation was introduced.

LITERATURE

CITIES OF THE PAST, IN PLAN

THE title "Introduction to Town Planning" must be read in conjunction with the second sub-title, "The Lesson of Antiquity," in order to realize accurately the scope of M. Marcel Poëte's book. It is true that the earlier chapters treat the subject on general lines, but they are lacking in the organic balance justifying the term "Introduction," and when Chapter 6 brings us to Ancient Egypt this opens up an historic study, carried through 240 pages, which, passing from the Nile to Mesopotamia, thence to Greece and the Greek colonies, terminates with the Greco-Roman cities of Syria.

While the author's scholarship and wide reading have provided him with masses of interesting knowledge, he seems entirely lacking in the capacity to select his facts and to arrange them in such a way as to emphasize their bearing on the structures of the city; again and again we find him trailing away from his subject and, fascinated by the general history of the times, embarking on dissertations that, if not entirely beside the point, are of little help to the "Urbaniste."

We are accustomed to look to France for a thesis having a programme concisely set forth and pursued with almost relentless logic and definition; it is disappointing to find in this case, and under such a title, a work in which so much interesting material is marshalled to so little purpose.

M. Poëte can both think and write, but if his work is to achieve what appears to be his aim he ought to exercise more care that all his facts and commentaries contribute directly and definitely to his exposition. To some extent the same criticism applies to the selection of the illustrations. Some of these are superfluous, while plans illustrating the towns under discussion would assist the descriptions in the letterpress. H. V. L.

Introduction a l'Urbanisme. L'Evolution des Villes: La Leçon de l'Antiquité. By Marcel Poëte. Paris: Boivin et Cie. 35 frs.

THE SUPERVISION OF BUILDING

TEXTBOOKS dealing with building work vary considerably as to the amount of interest they create in the mind of the student, and a number of these books are read with a feeling of relief when the final chapter is approached. Possibly the authors, however, feel fully compensated for their labours when they realize that many members of the profession fall back on them for reference, and in this capacity the books come into their own.

Mr. Metson's book, *The Supervision of Building*, is of considerable interest and one in which all engaged in the supervision of building works can feel that the information given is sound and of value. The author deals with the trades in separate chapters, and in

this manner the progress of the works can be easily followed. His interpretation of the requirements of the architect's specification is clear, and it is quite as exacting as it should be. While for the successful supervision of building works many years of experience are necessary before an architect can say "I have obtained in this contract nearly all that I asked for in the specification," this compact little book, which incidentally has special reference to the duties of the clerk of works, is a valuable addition to the architect's reference library.

W. A. D.

The Supervision of Building. By George Metson. London: "Illustrated Carpenter and Builder." Price 2s. 6d.

COMPETITIONS OPEN

August 30.—The Carlisle Corporation invites British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. The site was previously occupied by the Prison. The total length of the frontage is approximately 358 ft. Assessor: Francis Jones, F.R.I.B.A. Premiums: £300, £200, and £100. Particulars of the competition, etc., may be obtained from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

September 1.—The Bangor (Co. Down) Borough Council invites architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor: Professor Patrick Abercrombie, F.R.I.B.A. Premiums: £150 and £50 for first and second places, respectively. Copies of the conditions and plans will be forwarded on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs: September 1.

September 30.—The Isle of Man Education Authority invited architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

The Southport Education Committee has decided to invite architects practising in Lancashire to submit competitive designs for the erection of a new technical and art school, to be built at an estimated cost of £50,000. It has been decided to offer a first prize of £300 and a second prize of £100.

THE ARCHITECTS' DIARY

WEDNESDAY, AUGUST 6

ROYAL SOCIETY OF ARTS. At the Imperial Institute, Exhibition Road, South Kensington, S.W.7. Exhibition of designs submitted in the R.S.A. Competition of Industrial Designs. Until August 31. 10 a.m. to 5 p.m. (Sundays 2.30 to 6 p.m.). **10 a.m.**

ROYAL ACADEMY, Burlington House, S.W. Summer Exhibition open to the public until middle of August. 9 a.m. till 7 p.m. **9 a.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Light and Colour." 12 noon. "Electricity." 3 p.m. Both lectures by S. H. Groom, B.A. **12 noon.**

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. **10 a.m.**

SATURDAY, AUGUST 9

Sunrise, 5.35 a.m. Sunset, 8.35 p.m.

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By L. O. Faraker. **12 noon.**

TUESDAY, AUGUST 12

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Seventeenth-Century Furniture." 12 noon. "English Eighteenth-Century Furniture." 3 p.m. Both lectures by L. O. Faraker. "Spanish Art." By Miss M. Chamot. 3 p.m. **12 noon.**

THURSDAY, AUGUST 14

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Renaissance Furniture." By L. O. Faraker. **3 p.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Lighting and Illumination." By G. Tilghman Richards. **12 noon.**

SATURDAY, AUGUST 16

Sunrise, 5.46 a.m. Sunset, 8.22 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Indian Section: "Sculpture." By Miss M. Chamot. **3 p.m.**

TUESDAY, AUGUST 19

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Roads and Road Transport." By G. Tilghman Richards. **12 noon.**

THURSDAY, AUGUST 21

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By Miss M. Chamot. **3 p.m.**

SATURDAY, AUGUST 23

Sunrise, 5.56 a.m. Sunset, 8.8 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Ironwork." 12 noon. "Ecclesiastical Metalwork." 3 p.m. Both lectures by L. O. Faraker. **12 noon.**

MONDAY, AUGUST 25

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass." By T. F. Wilson, F.R.S.A.I. **3 p.m.**

TUESDAY, AUGUST 26

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Electricity." By S. H. Groom, B.A. **3 p.m.**

SATURDAY, AUGUST 30

Sunrise, 6.8 a.m. Sunset, 7.53 p.m.

MONDAY, SEPTEMBER 1

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. September 1 to September 6.

TUESDAY, SEPTEMBER 2

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "The Composition, Mixing, Methods of Application of Concrete and Reinforced Concrete, as used in the Yards, and the Control of Same." By T. R. Grigson, M.INST.C.E. "Some Notes on the Composition, Mixing and Application of Concrete in Engineering Works." By C. J. Jackaman, A.M.INST.C.E.

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

WEDNESDAY, SEPTEMBER 3

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Pieces in Concrete Piles." By M. J. C. McCarthy, A.M.INST.C.E., A.M.MECH.E. "Stresses in Dams." By S. D. Carothers. "A Study of Plain and Reinforced Concrete Retaining Walls." By Ewart S. Andrews, B.SC., M.INST.C.E. "Reinforced Concrete in Great Britain." By A. Kirkwood Dodds, M.C., M.SOC.C.E. (FRANCE). "Reinforced Concrete in Engineering: Representative Examples of British Practice." By M. Gerard, M.SOC.C.E. (FRANCE).

THURSDAY, SEPTEMBER 4

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Work of the Building Research Station on Small Movements in Concrete." By Dr. W. H. Glanville, B.SC., A.M.INST.C.E. "The Effect of Temperature on Flat Arches Constructed of Reinforced Concrete." By C. S. Gray, B.SC., A.M.INST.C.E. "Temperature and Cement." By Dr. Oscar Faber, O.B.E., M.INST.C.E.

SATURDAY, SEPTEMBER 6

Sunrise, 6.19 a.m. Sunset, 7.37 p.m.

XII. INTERNATIONAL CONGRESS OF ARCHITECTS. In Budapest. September 6 to 13. Opening of International Exhibition of Architectural Designs in the Picture Gallery of the Hungarian Scientific Academy. **10 a.m.**

THURSDAY, SEPTEMBER 11

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Furniture." 12 noon. "Italian Decoration." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

FRIDAY, SEPTEMBER 12

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Furniture." By Miss M. Chamot. 12 noon. "Gothic Woodwork." By T. F. Wilson, F.R.S.I.A. 3 p.m. **12 noon.**

SATURDAY, SEPTEMBER 13

Sunrise, 6.30 a.m. Sunset, 7.21 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

WEDNESDAY, SEPTEMBER 17

BRITISH GLASS CONVENTION. At Buxton. Until September 20. Morning: Meeting of the Council of the Society of Glass Technology. Afternoon: General Meeting of the Society of Glass Technology. Evening: Informal Presidential Reception of members and their friends at the Palace Hotel.

THURSDAY, SEPTEMBER 18

BRITISH GLASS CONVENTION. At Buxton. Morning: Official welcome by the Mayor and Corporation of Buxton, at the Peak Buildings. Presidential Address. Discussion on "Elimination of Waste in the Glass Industry," to be opened by Dr. Miles. Official luncheon. Evening: Mayoral Reception at the Palace Hotel.

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.). Until September 30. **10 a.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussions on "Marketing Methods in the Glass Industry" and "Public Propaganda in the Glass Industry," to be opened by Sir Francis Goodenough, C.B.E., and H. Gordon Selfridge respectively. Afternoon: Golf Competition for championship of the Glass Industry. Evening: Banquet at the Palace Hotel.

SATURDAY, SEPTEMBER 20

Sunrise, 6.41 a.m. Sunset, 7.5 p.m.

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussion on "The Convention—Present and Future," to be opened by Mr. Walter Chance, M.A., J.P.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass (1)." 12 noon. "Stained Glass (2)." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Continental Glass." 12 noon. "English Domestic Glass." 3 p.m. Both lectures by Miss B. Goldsmid. **12 noon.**

LAW REPORTS

ARCHITECT'S FEES

Shipwright v. *Lidiard. Court of Appeal. Before Lords Justices Scrutton, Greer and Slesser*

THE Court delivered its reserved judgment on the appeal of Sir Herbert Lidiard, of Great James Street, London, from a judgment of a King's Bench Divisional Court, consisting of Justices Talbot and Finlay, allowing an appeal by the plaintiff, Mr. Wm. Geo. Shipwright, an architect, of Abbey House, Victoria Street, London, S.W., and Broadstairs, from the judgment of Mr. G. A. Scott, one of the Official Referees of the High Court.

Mr. Shipwright brought his action against Sir Herbert Lidiard, a building owner, to recover £1,537, his fees in connection with work done for Sir Herbert in the development of a building estate at Woking, Surrey, belonging to Sir Herbert.

Lord Justice Scrutton, in the course of his judgment, said this appeal involved a charge of negligence against a professional man, and it required, and had received, the Court's careful consideration. Here, in twelve houses, a new material called aerocrete was used, without metal strengthening, and it was said that within six months a large number of cracks appeared, and the architect admitted that 50 per cent. of the houses had these cracks. One of the reasons given by the defendant for these cracks was alleged faulty design. The Official Referee saw the houses and he took the view that the aerocrete had not been sufficiently matured or dried and that the cracks were due to shrinkage in drying. The Official Referee found that the architect was negligent in specifying this material without inquiries or guarantees from the company. The architect had never used this material before. He had seen a large factory where it was used supported by steel reinforcement. He relied on statements he read in books. His lordship had read those statements and it was obvious that in England aerocrete was in its infancy. There was no evidence of the material's lasting qualities without reinforcement. In his lordship's opinion the architect made no adequate inquiries as to the lasting qualities of aerocrete and took no guarantees from the company. For an architect to put on his employers the risks of an untried material without any satisfactory experience of its behaviour seemed to his lordship to be a breach of an architect's duties and a failure to exercise his skill. The architect could have taken steps in the matter to see that the aerocrete was fit and proper. To take no guarantee was unfair to the building owner. It was not sufficient for an architect to have professional skill. He must use it. If he used material without proper inquiry and it went wrong, as in this case, he was guilty of negligence and the building owner was entitled to complain.

The appeal would be allowed with costs here and below, and the judgment of the Official Referee would be restored. The Court had nothing to do with the question of damages. They should be restricted to reasonable repairs. It seemed to be to the interest of the architect, builder and Aerocrete, without wasting further money in legal proceedings, to act together in this matter.

Lord Justice Greer concurred and said the architect was guilty of negligence and he must bear the result of that finding. He thought the architect made a grave blunder in advising aerocrete and his dismissal was justified.

Lord Justice Slesser said in his view the architect took a risk as architect which he had no right to take.

Appeal allowed with costs. Leave given to amend defence.

[A report of the action was published in THE ARCHITECTS' JOURNAL for May 7, 1930, page 724.]

LIGHT AND AIR CASE—NEW DICTUM AS TO ANCIENT LIGHTS

Sowler v. *Moorgate Estate Co., Ltd. Chancery Division. Before Mr. Justice Luxmoore*

This was an action by Mrs. Helen Josephine Sowler, the lessee of 74 Coleman Street, E.C., against Moorgate Estate Co., Ltd., of Bank Chambers, Powis Street, Woolwich, for an injunction to restrain the defendants from erecting any building so as to diminish the light to ancient windows in No. 74 Coleman Street, E.C., as those windows existed prior to 1915, and for damages.

Defendants denied the alleged obstruction to plaintiff's ancient lights.

Mr. Cyril Atkinson, K.C., and Mr. Beeber appeared for plaintiff, and Sir Thomas Hughes, K.C., and Mr. J. N. Gray for defendants.

Plaintiff's case was that her leasehold premises, No. 74 Coleman Street, extended over and in part abutted upon a narrow passage known as Nun Court. Defendants became owners of premises on the north side of Nun Court and both plaintiff and defendants had demolished their original premises and re-erected other buildings in their place. Plaintiff pulled down and rebuilt No. 74 Coleman Street in 1915, and the new building consisted of business premises, with a basement, ground floor and five floors above, lighted by windows facing Nun Court. The part of the defendants' building abutting on Nun Court opposite plaintiff's ancient windows prior to the recent demolition, consisted, plaintiff alleged, of a building to the height of 37 ft. 6 in., except for a short length of 8 ft., where the height was 40 ft. 4 in. Plaintiff alleged that defendants had erected new buildings abutting on Nun Court, and opposite to her premises, of a greatly increased size as compared with the old building, and had thereby diminished light formerly enjoyed by her ancient windows.

Defendants contended that only very small portions of the windows in plaintiff's present building occupied the same positions as the windows in the demolished building, and that the plaintiff's present windows were substantially new ones and were not entitled to any right of light belonging to the old windows. Defendants further said that their new building did not materially diminish the light coming to any of the plaintiff's windows.

Mr. J. Viner, architect, employed in connection with the work of demolition and the construction of the plaintiff's new building, said that it was the invariable professional custom to record the position of all windows which had the privilege of "ancient lights."

The witnesses called for plaintiff were Mr. Waldram, the daylight illumination expert; Mr. J. M. Waldram, his son; Sir Edwin Savill, a chartered surveyor; and Sir H. Daw, of Messrs. Herring, Son and Daw, Basinghall Street, E.C.

Sir Thomas Hughes, for the defence, contended that this was not a case for a mandatory injunction, but one of damages.

Mr. T. Henry Smith, architect and surveyor, of Basinghall Street, and Mr. Geo. Bailey, of King's Road, Smith Square, Westminster, gave evidence for the defence. Mr. Bailey said he was architect to the defendants' building, which would have cost £120,000 when completed, and it would cost at least £10,000 to alter so as to give plaintiff's building the same light as it previously had. Mr. Godfrey Lang, of Jones, Lang and Co., also gave evidence for the defence.

His lordship, in giving judgment, said it was agreed that all the rooms to plaintiff's old building were well lighted, considering the standard of light in the City of London. In fact of the some floors were exceptionally well lighted. The plaintiff claimed that the light to certain of her windows, which were ancient lights, had been interfered with by the defendants' new building, causing a diminution of light to the rooms, and apparently she would have been entitled to relief for obstruction. But the first difficulty arose in

view of the fact that the plaintiff's building had not retained in its entirety any of the old windows. The new windows in the plaintiff's building did not coincide with the old windows when the new building was erected. It was contended for the defendants that when the plaintiff rebuilt her building she abandoned her rights to the light to the old windows, and that there was an intention to abandon, by her, her rights. In his lordship's opinion the defendants' claim for abandonment by the plaintiff could not be supported. He could not see that there had been any abandonment here or intention to abandon her rights in regard to plaintiff's ancient lights. In this case each window must be considered separately. If any part of an ancient window was incorporated in a window in plaintiff's new building, the intention to abandon the light must be considered in the light of what had been abandoned. Any ancient light which was incorporated in a new and larger window indicated the intention to retain that ancient light. Here the plaintiff reserved her right to her windows, facing Nun Court, on the second and third floors of the building, and the first, second and third floors of her building, facing Hertford House. His lordship had not to deal with any windows on the ground floor, as the experts were agreed that the light enjoyed by the windows on the ground floor, even if retained to the full extent, would not affect the value of the ground floor. The defendants' new building materially obstructed the light enjoyed by the plaintiff's building. He was satisfied on this point. The obstruction was of such a nature as to constitute an action for interference within the Coles case.

The question which now arose was to what remedy was the plaintiff entitled. Was it a case for a mandatory injunction or would damages meet the case? He had had a large body of evidence that the windows of the plaintiff's building above the ground floor had been damaged as regards the lighting owing to the defendants' building, and damaged to a considerable amount. It certainly could not be compensated by a small money payment. Defendants' building was now completed and it would cost a large sum to alter it. This was not due to anything done by the plaintiff. As soon as the plaintiff heard of the proposed erection of the defendants' new building, her advisers got into touch with the defendants, but without result, and the defendants proceeded with the erection of their building.

Under these circumstances it was impossible for his lordship to say that the plaintiff had done anything to render the granting of an injunction oppressive. He therefore granted the plaintiff an injunction restraining the defendants from obstructing the access of light to those parts of plaintiff's ancient windows which had been incorporated in her new building on the first, second, third and fourth floors, and a mandatory injunction ordering the defendants to pull down so much of their building as obstructed the access of light to the plaintiff's windows. The defendants must pay the costs of the action.

The operation of the injunction was suspended for six months to give the defendants an opportunity of considering the question of appeal.

SOCIETIES AND INSTITUTIONS

R.I.B.A. MAINTENANCE SCHOLARSHIPS IN ARCHITECTURE

The R.I.B.A. Maintenance Scholarship (1930) of £100 has been awarded to Ralph Dickinson, of the Birmingham School of Architecture. The scholarship is tenable in the first instance for one year and renewable for two further periods of one year each.

In addition the following scholarships, each of £100 a year (except where otherwise stated), have been renewed for a further period of one year each: G. G. Laidler (Architectural Association School of Architecture); Hubert Bennett (School of Architecture, University of Manchester); F. W. Wright (School of Architecture, University of Sheffield); A. K. Brown (School of Architecture, Armstrong College, Newcastle-on-Tyne): £50.

The Artists' General Benevolent Institution Scholarship (£100), which is administered by the R.I.B.A., has been awarded for a further year to J. F. D. Wylson (Architectural Association School of Architecture).

SIR EDWIN LUTYENS

At a recent meeting of the Council of the Incorporated Association of Architects and Surveyors, Sir Edwin Lutyens, R.A., F.S.A., was elected a Vice-President of the Association.

INCORPORATED INSTITUTE OF BRITISH DECORATORS

A dinner given by the Incorporated Institute of British Decorators was held at the Criterion Restaurant, Piccadilly, recently. Mr. C. A. Hindley, F.I.B.D., President of the Institute, occupied the chair.

Mr. Geoffrey Le M. Mander, M.P., said that the ambition of the Institute was to obtain a Royal Charter and to perform for the decorators of England what the R.I.B.A. does for architects.

The Rt. Hon. J. R. Clynes, P.C., replying to Mr. Mander, said he appreciated very highly the real service the Incorporated Institute of British Decorators rendered, particularly to the young men who were coming into the business or into the trade, who by its existence got opportunities unknown to the older men now associated with the Institute. He was certain that the Institute was destined to do much good to the cause of decorative art in the making of the beautiful.

During the evening presentations were made to two past Presidents of the Institute, Messrs. John R. Chappell and Godfrey Giles.

Among those who also spoke were the following: Messrs. C. A. Hindley, F.I.B.D., R. H. Keatinge, O.B.E., F.I.B.D., G. Edward Line, Henry G. Dowling, F.R.S.A., F.I.B.D., Cyril E. Lloyd, O.B.E., M.INST.C.E., S. T. Laughton, F.I.B.D., T. Kershaw Bonner, F.I.B.D., Dr. G. D. Hindley, M.C., and Mrs. Grace Lovat Fraser.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

Martins Bank, Maidstone (pages 187–189). General contractors, G. E. Wallis and Sons. Sub-contractors: Excel Asphalte Co., Ltd., asphalt; Lips, Ltd., reinforced concrete and fireproof doors; Morris-Singer Co., patent glazing and casements; E. E. Pope, cast lead, plumbing and central heating; Thos. Pascall and Son, bricks; Art Pavements and Decorations, Ltd., patent flooring and stair treads; National Radiator Co., Ltd., boilers; O. Jones, electric wiring; Osler and Faraday, Ltd., electric light fixtures; Cecil Ern & Co., Ltd., electric light fixtures and metalwork; John Bolding and Sons, Ltd., sanitary fittings; A. Jones Lock Co., Ltd., door furniture; Arthur Glover, decorative plaster; Bagues, Ltd., metalwork; Ritchie and Sons, Ltd., office fittings.

Wolford Lodge, near Honiton, Devon (pages 190–194). General contractors, Wakelin and Rampling. Sub-contractors: J. T. Morton, heating; Edward Wolf & Co., electrical work; Herbert Read, carver; Roberts, Adlard & Co., roofing. Old glass re-leaded by Lowndes and Drury, of Fulham, under the direction of Martin Travers, who designed the new work.

ANNOUNCEMENTS

Mr. Alister G. MacDonald, A.R.I.B.A., has moved his offices from No. 6 Old Queen Street to No. 13 Queen Anne's Gate, S.W.1. Telephone Numbers: Victoria 2392, Victoria 8812, and Welbeck 2392.

Mr. S. H. Loweth, A.R.I.B.A., Deputy County Architect, Kent, has removed his office to The New Bothy, Mote Park, Maidstone, Kent. Telephone Number: Maidstone 3515.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 8½	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood ..	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 10 0
Pit gravel, per yd.	0 15 0
Pit sand, per yd.	0 12 6
Washed sand, per yd.	0 13 0
Screened ballast or gravel, add 10 per cent. per yd.	
Clinker, breeze, etc., prices according to locality.	
Portland cement, per ton	£2 8 0
Lias lime, per ton	2 0 0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1 3 0	*Trailer*	£0 15 0
3-ton motor lorry	3 15 0	*Steam roller*	4 5 0
Steam lorry, 5-ton	4 0 0	*Water cart*	1 5 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0 1 6
SPREAD and level, including wheeling, per yd.	0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0 10 6
TRIMMING earth to slopes, per yd. sup.	0 0 6
HACKING up old grano. or similar paving, per yd. sup.	0 1 3
PLANKING to excavations, per ft. sup.	0 0 5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.	
IF left in, add to above prices, per ft. cube	0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0 2 1
DO. 6 in. thick, per yd. sup.	0 2 10
PUDDLING, per yd. cube	1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube	1 17 6
DO. 6-2-1, per yd. cube	1 12 6
DO. in upper floors, add 15 per cent.	
DO. in reinforced-concrete work, add 20 per cent.	
DO. in underpinning, add 60 per cent.	
LIAS-LIME CONCRETE, per yd. cube	£1 14 0
BREEZE CONCRETE, per yd. cube	1 7 0
DO. in lintels, etc., per ft. cube	0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0 3 9
FINE concrete benching to bottom of manholes, per ft. cube	0 3 0
FINISHING surface of concrete spade face, per yd. sup.	0 0 9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0 0 10
DO. *6 in., per ft.*	0 1 3
DO. *9 in., per ft.*	0 2 3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 5 6
DO. *6 in., per yd.*	0 8 0
Portland cement and sand, see "Excavator" above.	
Leadwool, per cwt.	£2 0 0
Gaskin, per lb.	0 0 4½
STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0 4 3
DO. 6 in., per ft.	0 5 0
DO. 9 in., per ft.	0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0 8 3
DO. 6 in., per ft.	0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4 5 6
Flettons, per M.	2 12 6
White facing bricks, per M.	5 0 0
Multi-coloured facings, per M.	7 7 9
Best red facings, per M.	7 7 9
Rubbers, 9½ in., per M.	12 0 6
Staffordshire blue, per M.	9 5 0
Firebricks, 2½ in., per M.	9 5 0
Glazed salt, white, and ivory stretchers, per M.	21 10 0
DO. *headers, per M.*	20 10 0
Colours, extra, per M.	5 0 0
Seconds, less, per M.	1 0 0
Cement and sand, see "Excavator" above.	
Lime, grey stone, per ton	£2 11 6
Mixed lime mortar, per yd.	1 6 0
Dampcourse, in rolls of 4½ in., per roll	0 2 6
DO. *9 in. per roll*	0 4 9
DO. *14 in. per roll*	0 7 6
DO. *18 in. per roll*	0 9 6
BRICKWORK in stone lime mortar, Flettons or equal, per rod	30 0 0
DO. in cement do., per rod	32 10 0
DO. in stocks, add 25 per cent. per rod.	
DO. in blues, add 100 per cent. per rod.	
DO. circular on plan, add 12½ per cent. per rod.	
DO. in backing to masonry, add 12½ per cent. per rod.	
DO. in raising on old walls, etc., add 12½ per cent. per rod.	
DO. in underpinning, add 20 per cent. per rod.	
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0 1 0
BEDDING plates in cement mortar, per ft. run	0 0 3
BEDDING window or door frames, per ft. run	0 0 3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0 0 2
CUTTING do. in old walls in cement, per ft. run	0 0 4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0 0 7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0 3 6
DO. 14 ft. by 9 in. do., per ft. run	0 6 0
FLAUNCHING chimney pots, each	0 2 0
CUTTING and pinning ends of timbers, etc., in cement	0 1 0
FACINGS fair, per ft. sup. extra	0 0 3
DO. picked stocks, per ft. sup. extra	0 0 7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0 4 9
DO. in salt white or ivory glazed, per ft. sup. extra	0 5 6
TUCK pointing, per ft. sup. extra	0 0 10
WEATHER pointing, do. do.	0 0 3
TILE creasing with cement fillet each side, per ft. run	0 0 6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0 5 0
DO. 1½ in., per yd. sup.	0 6 0
DO. 2 in., per yd. sup.	0 7 0
If coloured with red oxide, per yd. sup.	0 1 0
If finished with carborundum, per yd. sup.	0 0 6
If in small quantities, in finishing to steps, etc., per ft. sup.	0 1 4
Jointing new grano. paving to old, per ft. run	0 0 4
Extra for dishing grano. or cement paving around gullies, each	0 1 6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0 0 7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0 8 0
DO. vertical, per yd. sup.	0 11 0
SLATE DAMP COURSE, per ft. sup.	0 0 10
ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd.	0 8 6
DO. SKIRTING, 6 in.	0 0 11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0 5 3
DO. DO. 3 in.	0 6 6
BREEZE fixing bricks, extra for each	0 0 3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. per hour; SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:	
Whitbed, per ft. cube	£0 4 6
Basebed, per ft. cube	0 4 9
Bath stone, per ft. cube	0 3 0
Usual trade extras for large blocks.	
York paving, av. 2½ in., per yd. super.	0 11 0
York templates sawn, per ft. cube	0 7 6
Slate shelves, rubbed, 1 in., per ft. sup.	0 2 6
Cement and sand, see "Excavator," etc., above.	
HOISTING and setting stone, per ft. cube	£0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.	
PLAIN face Portland basis, per ft. sup.	£0 2 8
DO. circular, per ft. sup.	0 4 0
SUNK FACE, per ft. sup.	0 3 9
DO. circular, per ft. sup.	0 4 10
JOINTS, arch, per ft. sup.	0 2 6
DO. sunk, per ft. sup.	0 2 7
DO. DO. circular, per ft. sup.	0 4 6
CIRCULAR-CIRCULAR work, per ft. sup.	1 2 0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0 1 1
DO. circular, do., per ft. run	0 1 4
HALF SAWING, per ft. sup.	0 1 0
Add to the foregoing prices, if in York stone, 35 per cent.	
DO. Mansfield, 12½ per cent.	
Deduct for Bath, 33⅓ per cent.	
DO. for Chilmark, 5 per cent.	
SETTING 1 in. slate shelving in cement, per ft. sup.	£0 0 6
RUBBED round nosing to do., per ft. lin.	£0 0 6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1 7 6
YORK SILLS, W. & T., ft. cub. fixed	1 10 0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0 1 3
DO. 2½ in. thick, per ft. sup.	0 1 6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies		£14 0 0
Countess		23 0 0
Duchess		32 10 0
Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3
Green Randoms, per ton		6 3 9
Grey-green do., per ton		7 3 9
Green peggies, 12 in. to 8 in. long, per ton		5 13 9
In 4-ton truck loads, delivered Nine Elms station.		
Clips, lead, per lb.		£0 0 6
Clips, copper, per lb.		0 2 0
Nails, compo, per cwt.		1 6 0
Nails, copper, per lb.		0 2 2
Cement and sand, see "Excavator," etc., above.		
Hand-made tiles, per M.		£5 18 0
Machine-made tiles, per M.		5 8 0
Westmorland slates, large, per ton		9 0 0
DO. *Peggies, per ton*		7 5 0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4 0 0
Countess, per square	4 5 0
Duchess, per square	4 10 0
WESTMORLAND, in diminishing courses, per square	6 5 0
CORNISH DO., per square	6 3 0
Add, if vertical, per square approx.	0 13 0
Add, if with copper nails, per square approx.	0 2 6
Double course at eaves, per ft. approx.	0 1 0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms		6 7 0
Grey-green do.		5 9 0
Green peggies, 12 in. to 8 in. long		4 13 6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3 17 6
DO., machine-made do., per square	3 7 6
Vertical Tiling, including pointing, add 18s. 0d. per square.	
FIXING lead soakers, per dozen	£0 0 10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0 10 0
LABOUR only in laying slates, but including nails, per square	1 0 0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard,	
Scandinavian, etc. (equal to 2nds):	
7 × 3, per std.	£22 0 0
11 × 4, per std.	30 0 0
Memel or Equal. Slightly less than foregoing.	
Flooring, P.E., 1 in., per sq.	£1 4 6
DO. *T. and G., 1 in., per sq.*	1 4 6
Planed boards, 1 in. × 11 in., per std.	30 0 0
Wainscot oak, per ft. sup. of 1 in.	0 1 6
Mahogany, Honduras, per ft. sup. of 1 in.	0 1 4
DO. *Cuba, per ft. sup. of 1 in.*	0 2 6
DO., *African, per ft. sup.*	0 1 3
Teak, per ft. sup. of 1 in.	0 1 2
DO., *ft. cube*	0 14 0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0 4 6
DO. framed in floors, roofs, etc., per ft. cube	0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube	0 8 6
PITCH PINE, add 33⅓ per cent.	
FIXING only boarding in floors, roofs, etc., per sq.	0 13 6
SARKING FELT laid, 1-ply, per yd.	0 1 6
DO., 3-ply, per yd.	0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq.	2 0 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0 0 4½
DO. 9 in. wide and over, per ft. sup.	0 1 2

[*continued overleaf*

CARPENTER AND JOINER : *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE FLATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
SPOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
SPOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets rolled to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1s. 8½d. *per hour ;* MATE, *do.* 1s. 3½d. *per hour ;* ERECTOR, 1s. 8½d. *per hour ;* FITTER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1s. 9d. *per hour ;* MATE OR LABOURER, 1s. 4d. *per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. 4 *in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. 3 *in., per yd.*	0	1	8
DO. 4 *in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. 4 *in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1s. 11½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ½ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1s. 7½d. *per hour.*

Glass : 4ths in crates			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. 4 *ft. sup.* ,,	0	2	3
DO. 6 *ft. sup.* ,,	0	2	6
DO. 20 *ft. sup.* ,,	0	3	1
DO. 45 *ft. sup.* ,,	0	3	3
DO. 65 *ft. sup.* ,,	0	3	5
DO. 100 *ft. sup.* ,,	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. ¼ *in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1s. 6d. to 2s. per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes fixed, per ft. sup. and up	£0	3	0
Glazing only, polished plate, 6½d. to 8d. per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1s. 7½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* FRENCH POLISHER, 1s. 8½d. *per hour ;* PAPERHANGER, 1s. 7½d. *per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

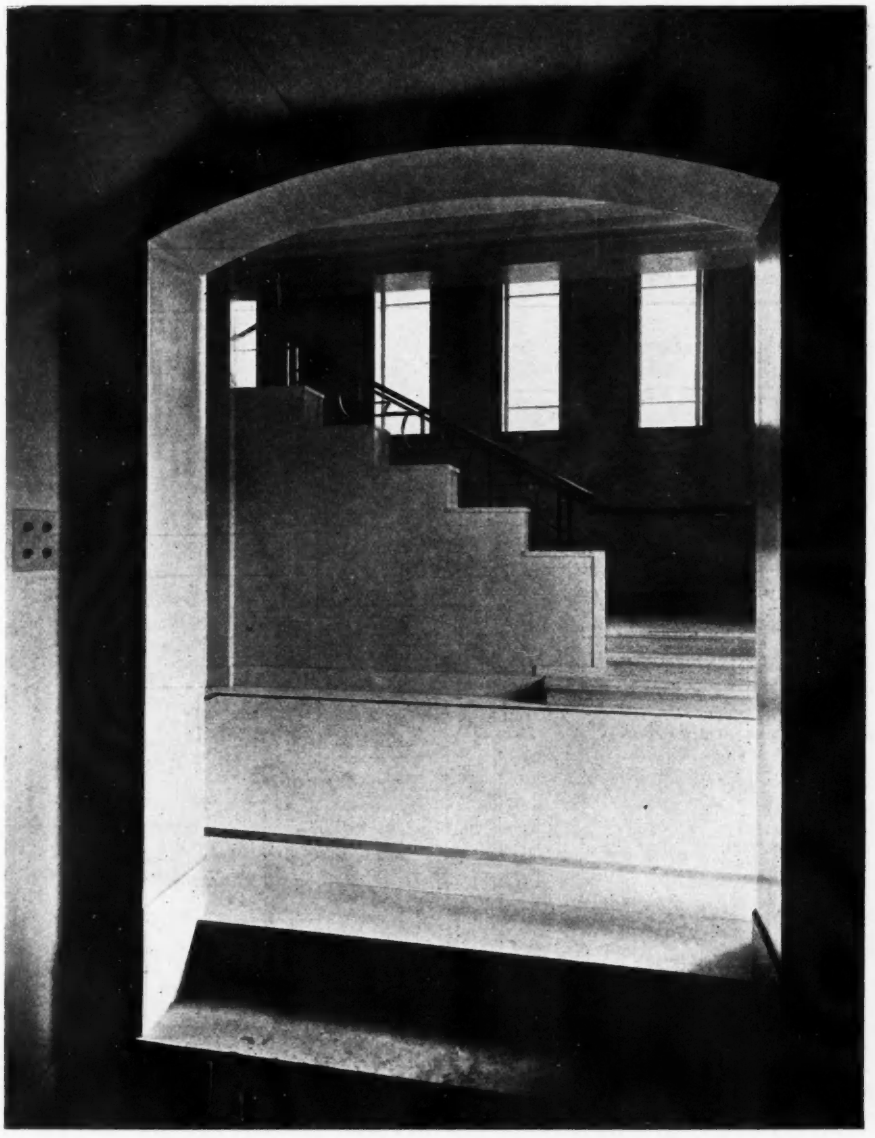
Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	10½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	13	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	10	—	—
Oregon Pine	5	4	—	6½	5	—	8	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



STAIRCASE AT THE ROYAL HORTICULTURAL HALL, LONDON
DESIGNED BY EASTON AND ROBERTSON

THERE is a direct and fresh outlook shown in this composition, that has led to disregard of the traditional treatment for a metal staircase balustrade; yet, at the same time, the repetition of a "panel," bearing a definite relationship to the flight of steps, is entirely logical.

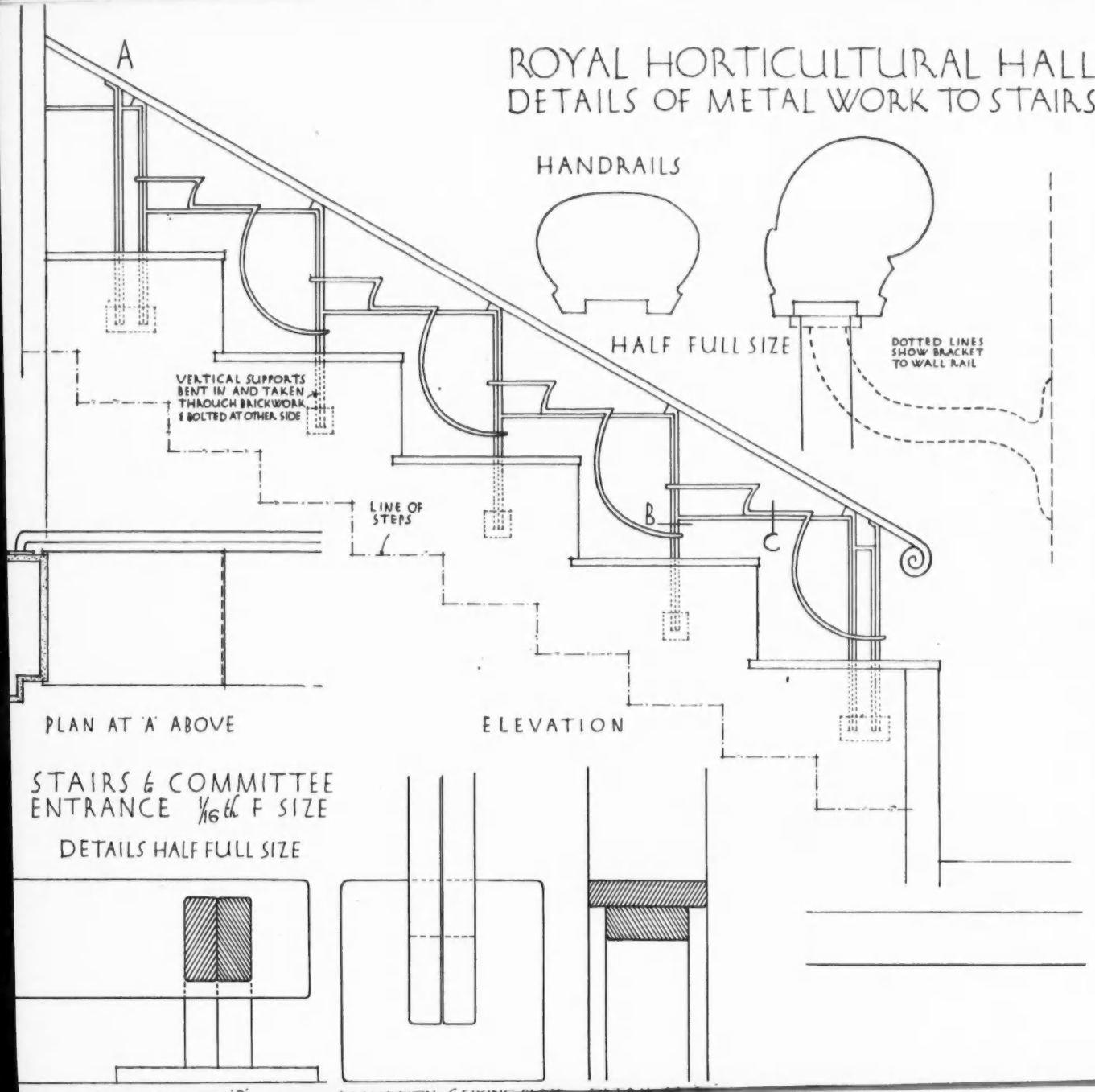
It will be noticed that here, as elsewhere throughout the building (previous examples were dealt with in our issues for June 11—clock—and July 16—light fitting), the detail is quite in accord with the uses of the Royal Horticultural Hall, and is again strongly reminiscent of plant and leaf forms.

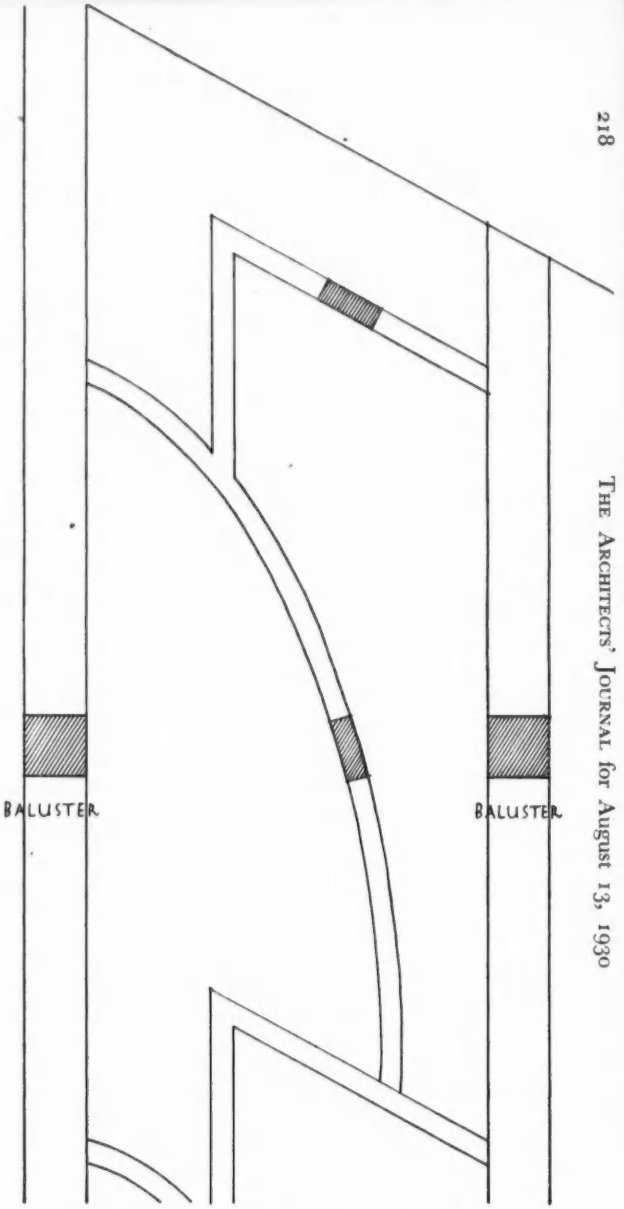
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ROYAL HORTICULTURAL HALL
DETAILS OF METAL WORK TO STAIRS

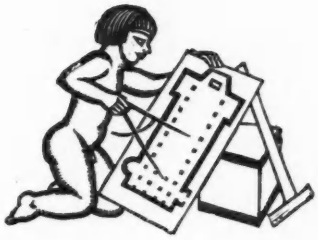




HALF FULL SIZE DETAIL OF PART OF PANEL of STAIRCASE IN SOUTH WEST TOWER

EASTON AND ROBERTSON ARCHITECTS

THE ARCHITECTS' JOURNAL



WEDNESDAY, AUGUST 13, 1930

BACK TO BATHSHEBA

or, the Doctor's View

"This is an appeal to architects. They should be allies of the hygienist."

—LENS in *The New Statesman.*

THE well-known member of the medical profession who writes under the pseudonym of Lens is to be congratulated on his intelligent interest in domestic architecture. Although many of us have collaborated with doctors in the planning of hospitals, we have hardly realized yet the importance of their point of view in the arrangement of houses. Lens has a genuine complaint, for he speaks from a personal experience. He lives on the northern edge of St. John's Wood, in an oldish house with a pitched roof, except for one small part 13 ft. square, which has a flat roof. To the latter, access has been made, and for a few pounds Lens has acquired "a new living-room, a new toy, a sleeping place, a solarium and an observatory." This experience leads him to the declaration, "All these pitched roofs . . . represent stupid waste of . . . civic area."

We have much sympathy with the doctor's point of view. We will summarize the objections to it; as shortly as possible because to do so will seem to our modernist friends like crossing the *t* and dotting the *i* of obscurantism. A flat roof with a suitable surface for walking on, and protected by a parapet, is dearer than a pitched roof: an air-space between the ceiling and the roof gives insulation from heat in summer and cold in winter; it follows there is less risk of condensation; the tiles or slates covering a pitched roof are rather more reliable than the coverings of a flat roof; the elimination of pitched roofs will cause a wide dislocation of employment. But our main difficulty is with our clients, whom Lens would like us to persuade to his point of view. For our clients usually like sloping roofs, but entirely for sentimental reasons. They do not ask merely for a house but a home, and at present they do not recognize an apparently roofless building as fulfilling their sentimental ideal of a home.

The sense of architecture in the public is like a plant with a rather sickly appearance and blooms of uncertain colour, but with roots which go down very deep into the strata of primitive impulses. Instinct responds to the visible roof descending to the walls and projecting over them as a cornice or an eaves, and there are inherited satisfactions in approaching a home of this type. Nor must we forget the wide variety within the type—the differences of pitch, of colour and of material, the proprieties of size as between dominant and subsidiary roofs, the interest of valleys, ridges and eaves, and the many inventions of shapes.

Can we blame our clients for preferring the cheerfulness and assurance of pitched roofs to the dubious delights of sun-bathing with flies, or snoring to thunder; or for holding that any number of Bathshebas fail to banish the impression that German housing schemes look dull?

But in so far as Lens considers there should be closer relations between his profession and ours, both our clients and ourselves agree. We are a nervous generation and health seems to us the prime necessity; just as the soldier moulded the buildings of the Middle Ages, and the gentleman those of the Renaissance, so the doctor's influence is predominant today. Every house-building client must be asked if he wants a solarium, either on the roof or as a recessed veranda or loggia, and even though we retain our slopes over the main blocks, we can form a flat roof in a subsidiary position and make the best of both worlds.

Finally, we would point out to Lens that most houses designed by architects already go some way to meet his ideas, as we noted in reviewing the volume of *Recent Domestic Architecture* last year. It is the type of house built without an architect's plan that he must attack.

CARPENTER AND JOINER : *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
SCOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1⅛ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1⅛ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1s. 8½d. *per hour* ; MATE, *do.* 1s. 3½d. *per hour* ; ERECTOR, 1s. 8½d. *per hour* ; FITTER, 1s. 8½d. *per hour* ; LABOURER, 1s. 3½d. *per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1s. 9d. *per hour* ; MATE OR LABOURER, 1s. 4d. *per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. 4 *in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. 3 *in., per yd.*	0	1	8
DO. 4 *in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. 4 *in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ⅝ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete. 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ⅝ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1s. 11½d. *per hour* ; LABOURER, 1s. 3½d. *per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ½ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1s. 7½d. *per hour.*

Glass : 4ths in crates			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. 4 *ft. sup.* ,,	0	2	3
DO. 6 *ft. sup.* ,,	0	2	6
DO. 20 *ft. sup.* ,,	0	3	1
DO. 45 *ft. sup.* ,,	0	3	3
DO. 65 *ft. sup.* ,,	0	3	5
DO. 100 *ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. ½ *in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1s. 6d. to 2s. per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes fixed, per ft. sup. and up	£0	2	0
Glazing only, polished plate, 6½d. to 8d. per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1s. 7½d. *per hour* ; LABOURER, 1s. 3½d. *per hour* ; FRENCH POLISHER, 1s. 8½d. *per hour* ; PAPERHANGER, 1s. 7½d. *per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	0	9
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.

The measured work price is on the same basis . . . per ft. sup. £0 0 2½

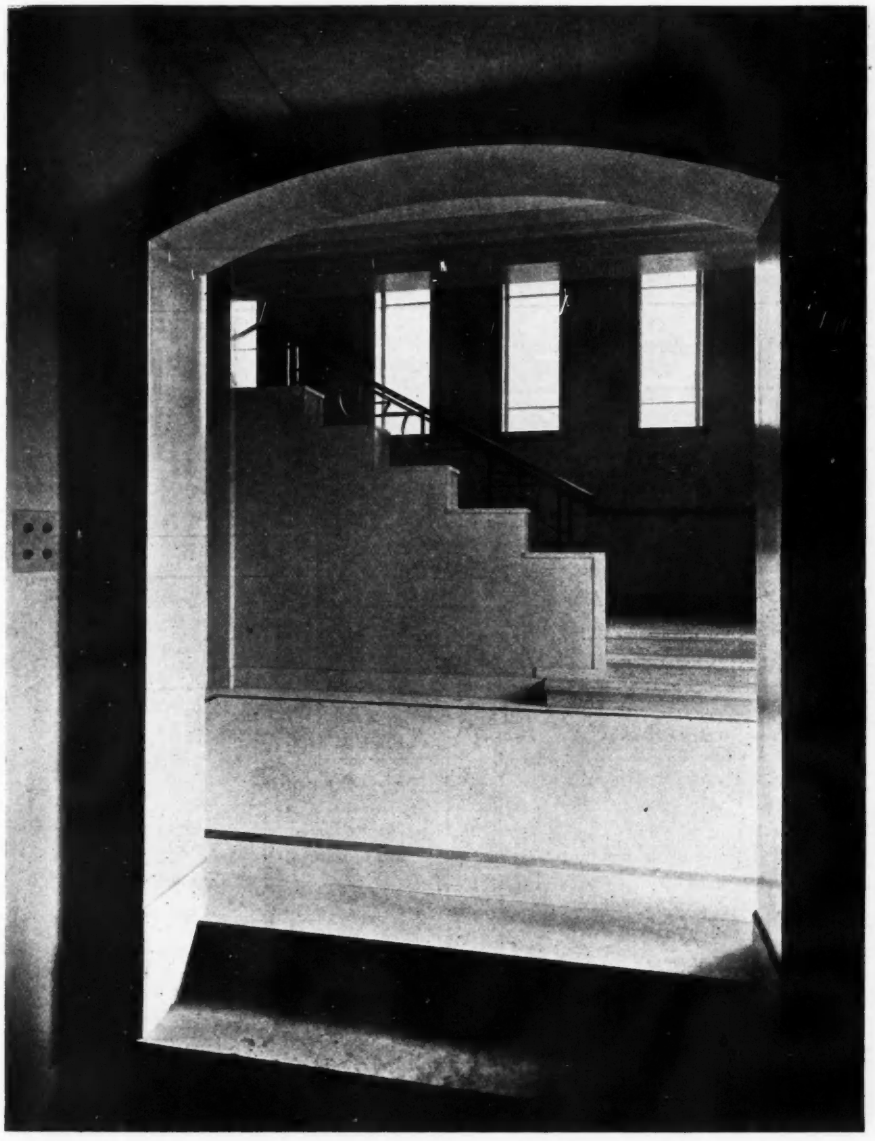
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . from	0	2	3
Asbestos sheeting, 5/32 in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, 5/32 in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	5/16 in.			½ in.			⅝ in.			¾ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	8½	6½	4½	8	7	6
Gaboon												
Mahogany	6	5	3	8½	5½	4½	9½	7½	—	10½	10	—
Figured Oak 1 side	6½	7	—	10	8	—	11½	—	—	13	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	10	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



STAIRCASE AT THE ROYAL HORTICULTURAL HALL, LONDON
DESIGNED BY EASTON AND ROBERTSON

THERE is a direct and fresh outlook shown in this composition, that has led to disregard of the traditional treatment for a metal staircase balustrade; yet, at the same time, the repetition of a "panel," bearing a definite relationship to the flight of steps, is entirely logical.

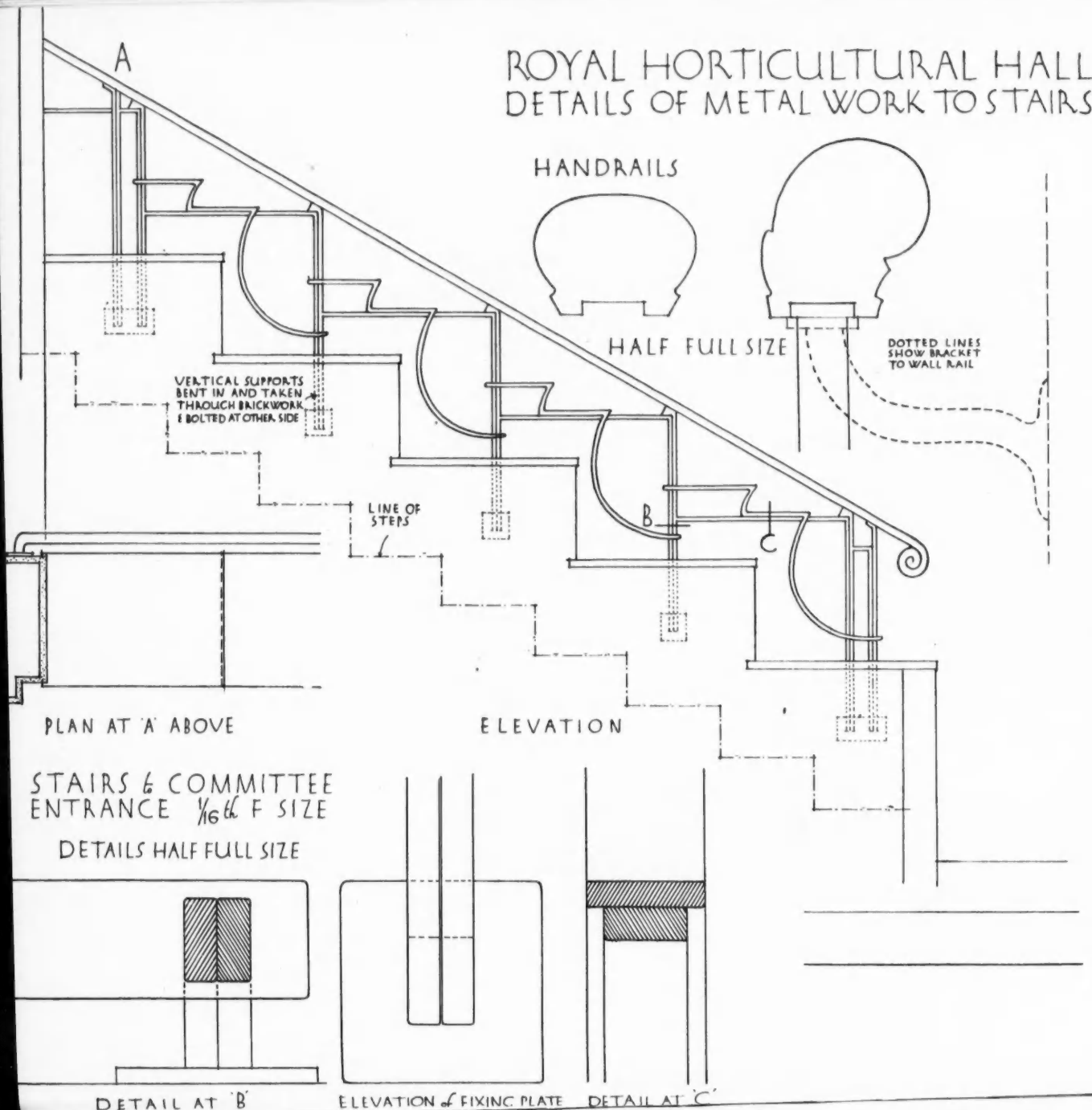
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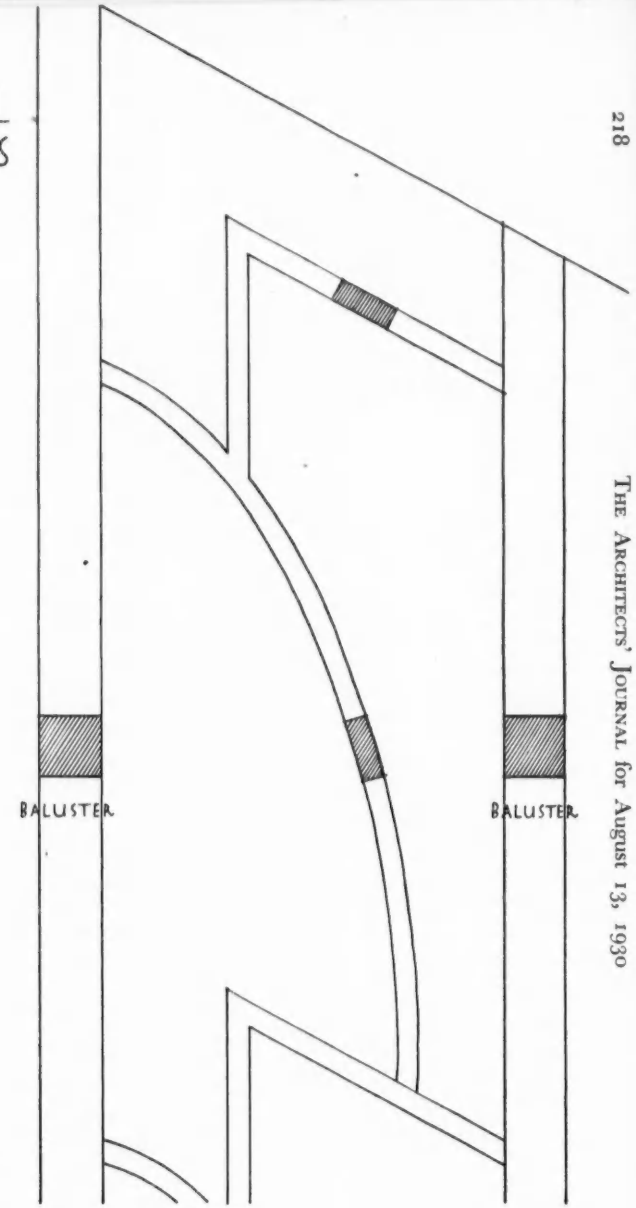
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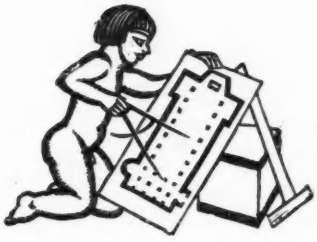




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EASTON AND ROBERTSON ARCHITECTS

THE ARCHITECTS' JOURNAL



WEDNESDAY, AUGUST 13, 1930

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or, the Doctor's View

"This is an appeal to architects. They should be allies of the hygienist."

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THE well-known member of the medical profession who writes under the pseudonym of Lens is to be congratulated on his intelligent interest in domestic architecture. Although many of us have collaborated with doctors in the planning of hospitals, we have hardly realized yet the importance of their point of view in the arrangement of houses. Lens has a genuine complaint, for he speaks from a personal experience. He lives on the northern edge of St. John's Wood, in an oldish house with a pitched roof, except for one small part 13 ft. square, which has a flat roof. To the latter, access has been made, and for a few pounds Lens has acquired "a new living-room, a new toy, a sleeping place, a solarium and an observatory." This experience leads him to the declaration, "All these pitched roofs . . . represent stupid waste of . . . civic area."

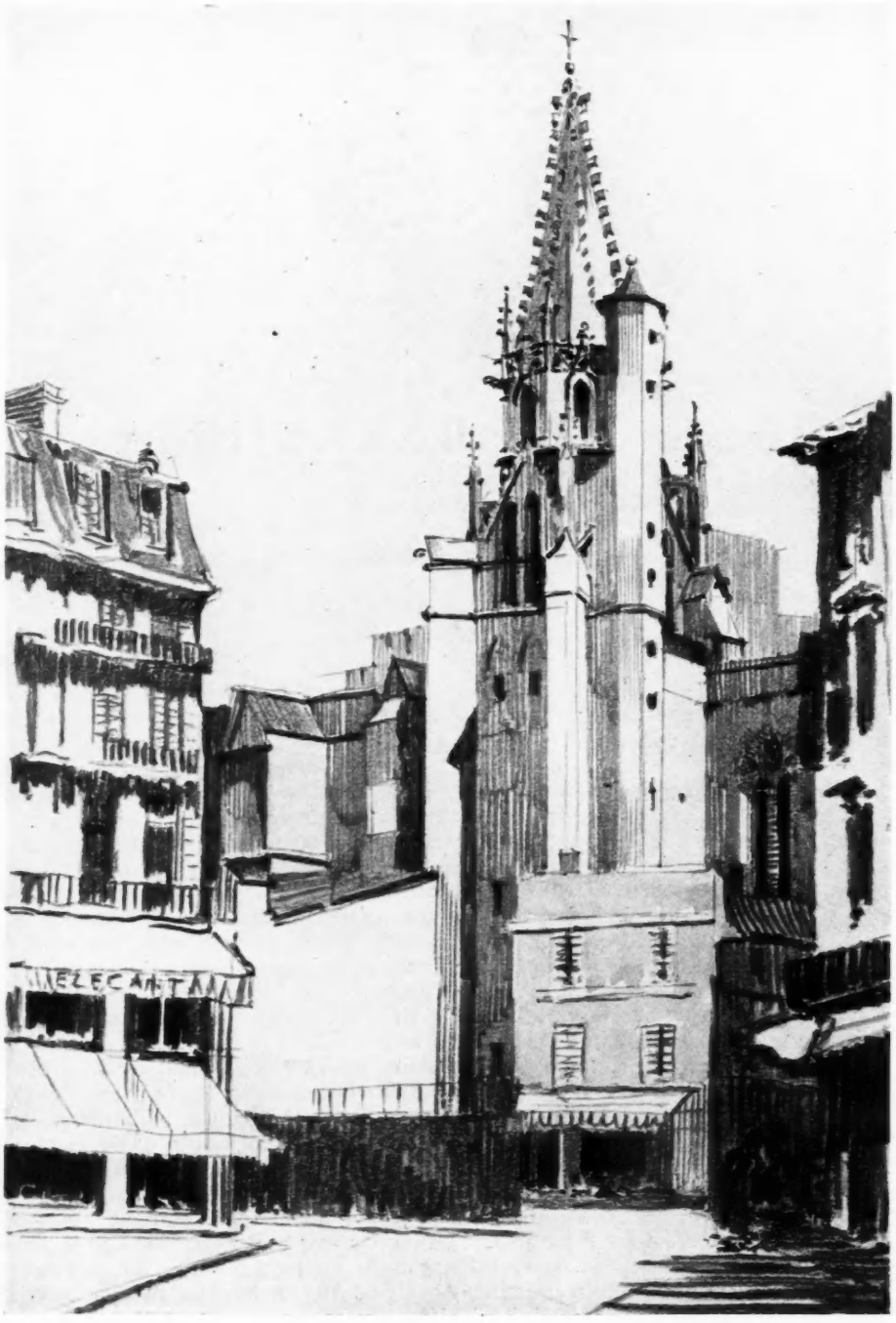
We have much sympathy with the doctor's point of view. We will summarize the objections to it; as shortly as possible because to do so will seem to our modernist friends like crossing the *t* and dotting the *i* of obscurantism. A flat roof with a suitable surface for walking on, and protected by a parapet, is dearer than a pitched roof: an air-space between the ceiling and the roof gives insulation from heat in summer and cold in winter; it follows there is less risk of condensation; the tiles or slates covering a pitched roof are rather more reliable than the coverings of a flat roof; the elimination of pitched roofs will cause a wide dislocation of employment. But our main difficulty is with our clients, whom Lens would like us to persuade to his point of view. For our clients usually like sloping roofs, but entirely for sentimental reasons. They do not ask merely for a house but a home, and at present they do not recognize an apparently roofless building as fulfilling their sentimental ideal of a home.

The sense of architecture in the public is like a plant with a rather sickly appearance and blooms of uncertain colour, but with roots which go down very deep into the strata of primitive impulses. Instinct responds to the visible roof descending to the walls and projecting over them as a cornice or an eaves, and there are inherited satisfactions in approaching a home of this type. Nor must we forget the wide variety within the type—the differences of pitch, of colour and of material, the proprieties of size as between dominant and subsidiary roofs, the interest of valleys, ridges and eaves, and the many inventions of shapes.

Can we blame our clients for preferring the cheerfulness and assurance of pitched roofs to the dubious delights of sun-bathing with flies, or snoring to thunder; or for holding that any number of Bathshebas fail to banish the impression that German housing schemes look dull?

But in so far as Lens considers there should be closer relations between his profession and ours, both our clients and ourselves agree. We are a nervous generation and health seems to us the prime necessity; just as the soldier moulded the buildings of the Middle Ages, and the gentleman those of the Renaissance, so the doctor's influence is predominant today. Every house-building client must be asked if he wants a solarium, either on the roof or as a recessed veranda or loggia, and even though we retain our slopes over the main blocks, we can form a flat roof in a subsidiary position and make the best of both worlds.

Finally, we would point out to Lens that most houses designed by architects already go some way to meet his ideas, as we noted in reviewing the volume of *Recent Domestic Architecture* last year. It is the type of house built without an architect's plan that he must attack.



The South Side of St. Pierre, Avignon.

By P. J. Westwood (Pencil, with slight wash: 9½ ins. by 6½ ins.)

FIRST PRIZE DRAWING:
HOLIDAY SKETCHES COMPETITION (JUNE)

This sketch—one of a set of five—has been awarded the prize of ten guineas in the first of the three ARCHITECTS' JOURNAL *competitions. Three of the winner's other subjects, together with a selection of those by the second (five guineas) prize winner, Alan Sherwin, are exhibited in the Sketch Club this session.*



P. J. Westwood, winner of the June Holiday Sketches Competition, received his architectural education at the A.A. Schools, where he won the A.A. Medal and Studentship in 1899 (Lectures). Many business premises, showrooms and factories have been erected from his designs, some in partnership with Joseph Emberton—notably Austin Reed's in Regent Street.

NEWS & TOPICS

NOT BY-PASS ROADS—BUT BUILDING SITES

MR. GUY DAWBER, in a recent letter to *The Times*, expressed his fears for the whole face of rural England, blaming the new roads for its destruction, and wondering whether these roads were not too big, too many—and too late. Too late they may be, if aviation progresses with the same speed as motoring, but not, I think, too many or too big, for they are, even in their present bareness, rather fine things ; and when their trees grow tall, mile upon mile of great avenue, it may be that we shall be blessed by those quiet souls who, in the future, prefer rather to walk on the tree-shaded earth than fly in the noisy skies.

★

As for the bungalows and other shoddy litter that spring up by the road, these are not a part of it. The road was designed to take transport from place to place. It is patently a speed track, a trunk road, and an artery. It knows little of the intimate countryside it passes through because it is county-wide rather than hamlet-wide, and passes over like a Roman road, but with much more feeling for the contouring of the earth.

★

The pity of the thing lies in the lack of purpose in those who laid out the roads. They did not realize that a road that was built for swift traffic from place to place should not stoop to anything less menial than this high office. Translated into terms of concrete and drains, this means that there should be no sewers in arterial roads, the very minimum of cross-roads, no buildings lining its pavements other than those big and grand enough to pay their way; and that the villages and housing schemes that it ultimately serves should lie away from its speed and noise so that it should bring prosperity to the country through efficient transport rather than through cheap-jacking by the kerbside.

★

There was a chance once that every new trunk road might have been a parkway. It required but the purchase of enough land on either side to cause the development in depth which would alone save their beauty and ensure their ultimate usefulness and profit. But the Ministry was a spending and not a saving department; and so it decided to do what was wrong, and short-sighted, and, as we see it today, destructive. And then it helped to form a roadside beautifying society, which was very nearly insulting to those who had to find the money for the roads and who knew better than the Ministry how to spend it.

ECONOMY, A SMOTHER OF INVENTION

Mr. H. Tomlinson, speaking at Cambridge, said that the small houses of this country are the best in the world. Opinions may differ, and the widely-travelled may be able to tell us more exactly where we stand, and how far we are unique in building little family houses in village formation, rather than more communal and urban dwellings. Yet we may rejoice with Mr. Tomlinson that we have passed from the very bad old days of Late Victorianism, and the even worse Edwardian period, into the comparative sanity of these days we live in; for the seed which was planted at Letchworth and Hampstead has grown into a tolerable harvest of good work, among which even the house of the jerry-builder, that once lacked every charm, is seen to be decked with a certain simple propriety. Economy, if I may say so, has been a smother of invention.

AN ALFRED STEVENS DOORWAY

The Museum of Practical Geology has long been one of the " dark spots " of Piccadilly. It is a gloomy façade, never, even in its youth, an outstanding work. We shall therefore know how to contain our grief when it is demolished in the near future, and its contents are transported to a new building which the Office of Works are designing on a site adjoining the Science Museum in South Kensington.

★

My knowledge of the interior of the old museum is confined to an impression of extreme stuffiness that pervades a photograph of it in Richardson's *Monumental Architecture* : but how many times, in passing along Jermyn Street, have I not experienced the thrill of seeing again Alfred Stevens's great doorway, and wondered what would be its fate? I have never doubted that the museum would go, but for that fine doorway I have had many fears—fears once that it might be destroyed entirely; then fears that it might be put into some museum instead of *on* one; and then, feeling that men were becoming wise enough to keep beautiful and appropriate things, that it would be incorporated with some building unworthy of it.

★

It is a noble doorway, and one that the very best architect among us might be proud to design; and one that would make an entrance to a new museum such as the Office of Works might themselves design. I would like to suggest, if it has not already suggested itself, that the new museum would be graced by Alfred Stevens's portal. It would, I think, bring life to nearly any façade with which it was sympathetically associated, for it is a finely modelled piece of work, and of a craftsmanship much above our average. It would be an economy too.

THE HONEST SURVEYOR

The common notions of what constitutes an architect's duties must be extraordinarily vague, for, as we know, most local authorities see nothing amiss in employing a man, trained to be an engineer and surveyor, and brought up in an atmosphere of slide rules and crimson lake edging, to do their housing and other miscellaneous architecting. The evolution, from underground lavatories to public shelters, and so on to markets and libraries, is not so illogical, apparently, to others as it is to us, and the saving in cost, itself a beautiful thought, tips the balance in any

case. Yet there is a surveyor who is reported to have refused to take on architecture in addition to drain-laying, maintaining that he was engaged to be a surveyor and not an architect; and if there were more such honest men about there would be fewer bad Council houses to bemoan. It is a fact that architecture is looked upon as a tolerably easy acquisition by public officials. It has lost caste just when architects set out to build the small house better than it had been built before.

COMPARATIVE BUILDING COSTS HERE AND IN THE U.S.A.

The present Government, through their Economic Council, are paying attention to the question of building costs. Can these be reduced, and if so, will house rents be decreased and more work found for the building operatives who are now unemployed? Much has been said in certain quarters as to the much cheaper production of building in the United States as compared with this country.

★

But according to Mr. R. G. Tarran, the President of the Hull Master Builders' Federation, there is a good deal of loose thinking on this point. Although the costs of building in America and in England vary, greatly to the advantage of the latter, he takes the view that there is not the same difference between the costs of building in towns like Hull, Leeds and Newcastle-on-Tyne, and in the smaller American towns. He also considers that the finished article in America, especially as regards skyscrapers, is not equal to a British building. He tells of slipshod fixing of masonry in the United States. At the same time he recognizes that the rates of wages paid to American operatives are higher than in this country, and that this causes them to give willingly a greater output.

SH—— !

We are all prone to diagnose our own symptoms, and to have the diagnosis confirmed by the faculty seldom fails to bring some sort of wry satisfaction. But we scarcely needed Dr. G. F. Buchan, medical officer of health to the Willesden Urban District Council, to describe for us the deleterious effects of the noises of latter-day life that we detect within ourselves. It needs no physician's researches to inform us that "a newly-born infant shows a distinct fear reaction at the sound of a loud noise"; and that, on eventually awaking, the sleeper will betray irritation as a result of nervous tension due to the din, is the experience of every keeper of an alarm-clock. Yes, the trouble, and the sources, are real enough. It is true that hundreds of thousands of industrial and clerical workers live their waking hours amid the perpetual thunders of, as it were, a whole battery of alarm-clocks. What, then, is our remedy?

★

The legal creation of a "noise nuisance" offers obvious difficulties. (When is a noise a mere rumour?) Nevertheless it will probably need legislation to crystallize the nation's growing hatred of noise. In the meantime there is a tendency among architects to explore the means of constructing rooms that shall be insulated from sound, and modern manufacturing processes have many sound-proofing materials to offer. The trouble usually arises with windows and ventilation. For soundless fresh air we must still seek the solitary mountain-tops.

A LEAF FROM A BRUSSELS PARK

Although what I am about to say is not strictly within the realms of architecture, writes a correspondent, it is intimately connected with the beautifying of a town and at the same time shows that some public bodies possess a unique view of public (or mass) psychology. I have just returned from Brussels, where I read the following notice (written in French and Flemish) at the entrance to Brussels Park. I think it is far more efficacious than our own system of inciting people to "squeak" on wrong-doers for the sum of 40s., or a direct threat of a £5 fine. I append a free translation: "Les arbres nous donnant de l'ombre; comme les plantes et les fleurs ils sont la joie et la béauté du paysage. Abîmer les arbres et les plantes, c'est se faire du tort à soi-même." (The trees give us shade; like the plants and the flowers they are the joy and the beauty of the countryside. To destroy the trees and the plants is to do wrong unto oneself.) ASTRAGAL



The badge which will in future be worn by the President of the Royal Society of British Sculptors. This badge has been instituted as a memorial to Sir Thomas Brock, the first President of the Society, whose name, with those of other past presidents, is engraved on the chain. The design is by Mr. Richard Garbe, F.R.B.S., A.R.A., and is carried out in gold, enamel and jewels, the main figure being carved in ivory. It will be noticed that the links of the chain on the right of the picture are left blank; hereon will be inscribed the names of future Presidents as they retire from office. The present President, who was elected nine years ago, is Mr. Reynolds Stephens.

THE MERCANTILE MARINE MEMORIAL

Tower Hill, London, E.C.

DESIGNED BY SIR EDWIN LUTYENS

THE Mercantile Marine Memorial was erected by all the Governments of the Empire, through the Imperial War Graves Commission, to commemorate the names of over 12,000 officers and men of the Merchant Navy and Fishing Fleets who lost their lives at sea through enemy action and whose graves are unknown. It stands, rightly enough, on Tower Hill, on the south side of Trinity Square, which is generally regarded as the hub of maritime England; with its back to Trinity House and the big P.L.A. building, and within sight of the forest of masts of St. Katherine's Docks.

The memorial is a counterpart to those erected by the Imperial War Graves Commission at Chatham, Portsmouth and Plymouth to the "missing" of the Royal Navy; and to the Menin Gate and other memorials erected on the battlefields abroad. It is of Portland stone, and has eight piers, encased with bronze panels on which are inscribed the names of the "missing," arranged under their ships. It consists of a vaulted corridor, 64 ft. long, in three bays, 17 ft. wide, approached from each end by archways 8 ft. wide. Between the piers are columns in pairs carrying the Doric entablature that surrounds the monument. Each end is pedimented and the centre is emphasized by a rectangular feature finished with a circular treatment, on the faces of which feature the dedication is inscribed.

The total length of the memorial is 64 ft., the width 24 ft., and the heights 24 ft. 6 ins. at the ends and 35 ft. in the centre, from floor to roof respectively.

The inscribed dedication reads:

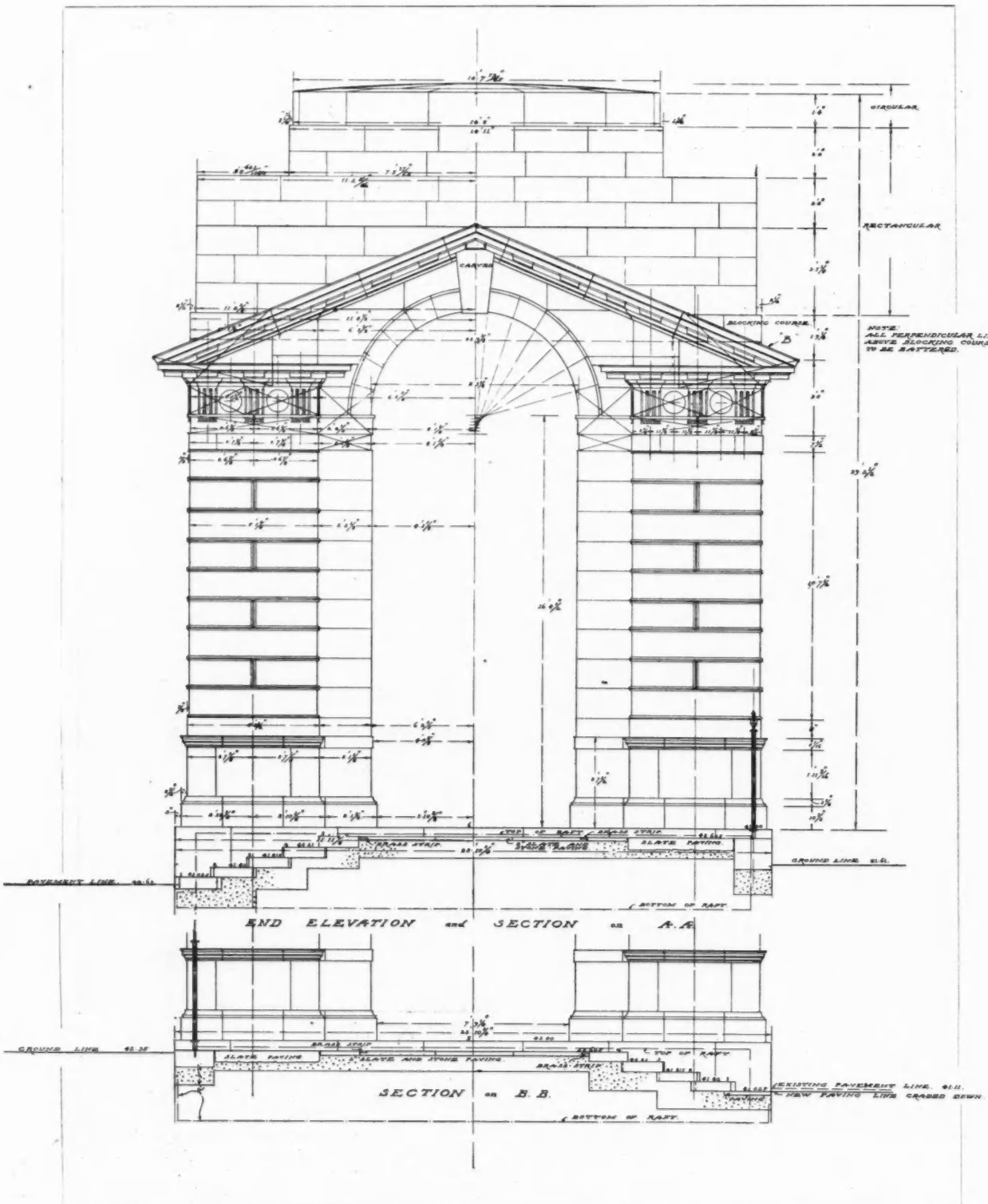
1914–1918
TO THE GLORY OF GOD
AND TO THE HONOUR OF
TWELVE THOUSAND
OF THE MERCHANT NAVY
AND FISHING FLEETS
WHO HAVE NO GRAVE BUT THE SEA

The entrance gates and railings to the memorial are of the spearhead type, each of the former being provided with rollers and a quarter-circle track over which they run when being opened and closed.

The memorial was opened by H.M. the Queen. It is a fine thing, and, new as it is, seems to have an atmosphere of history about it. Already rich in that atmosphere, the City is the richer and more famous for this piece of Lutyens's work.



The memorial is of Portland stone and has eight piers encased with bronze panels, inscribed with the names of over 12,000 officers and men of the Merchant Navy and Fishing Fleets who lost their lives in the war and who have no grave but the sea.



The Mercantile Marine Memorial, London, E.C.]

Detail drawing of one of the two end pedimented features. The memorial is approached at either end by an archway 8 ft. wide. It stands on a sloping site, with a maximum height of 24 ft. 6 ins. at the ends and 35 ft. in the centre.



[*By Sir Edwin Lutyens.*

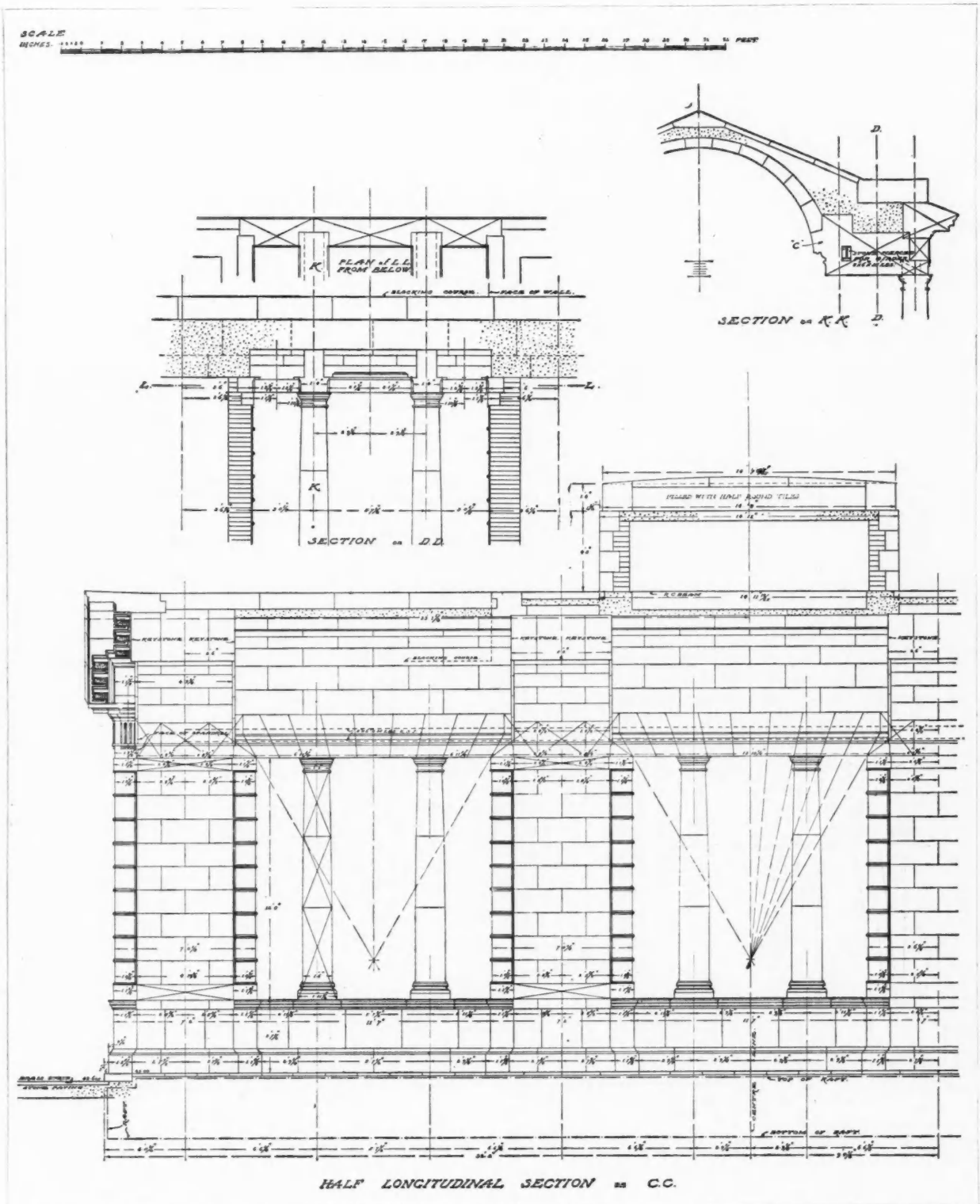
A photograph of one of the two end pedimented features, showing the entrance gates and railings, detail drawings of which appear on page 228. A curious texture is produced on the bronze panels by the inscribed names of the "missing."

C



The Mercantile Marine Memorial, London, E.C.]

A photographic detail of the side of the memorial. A section appears on the facing page. The memorial stands with its back to Sir Edwin Cooper's building for the Port of London Authority, the tower of which is shown in the illustration.

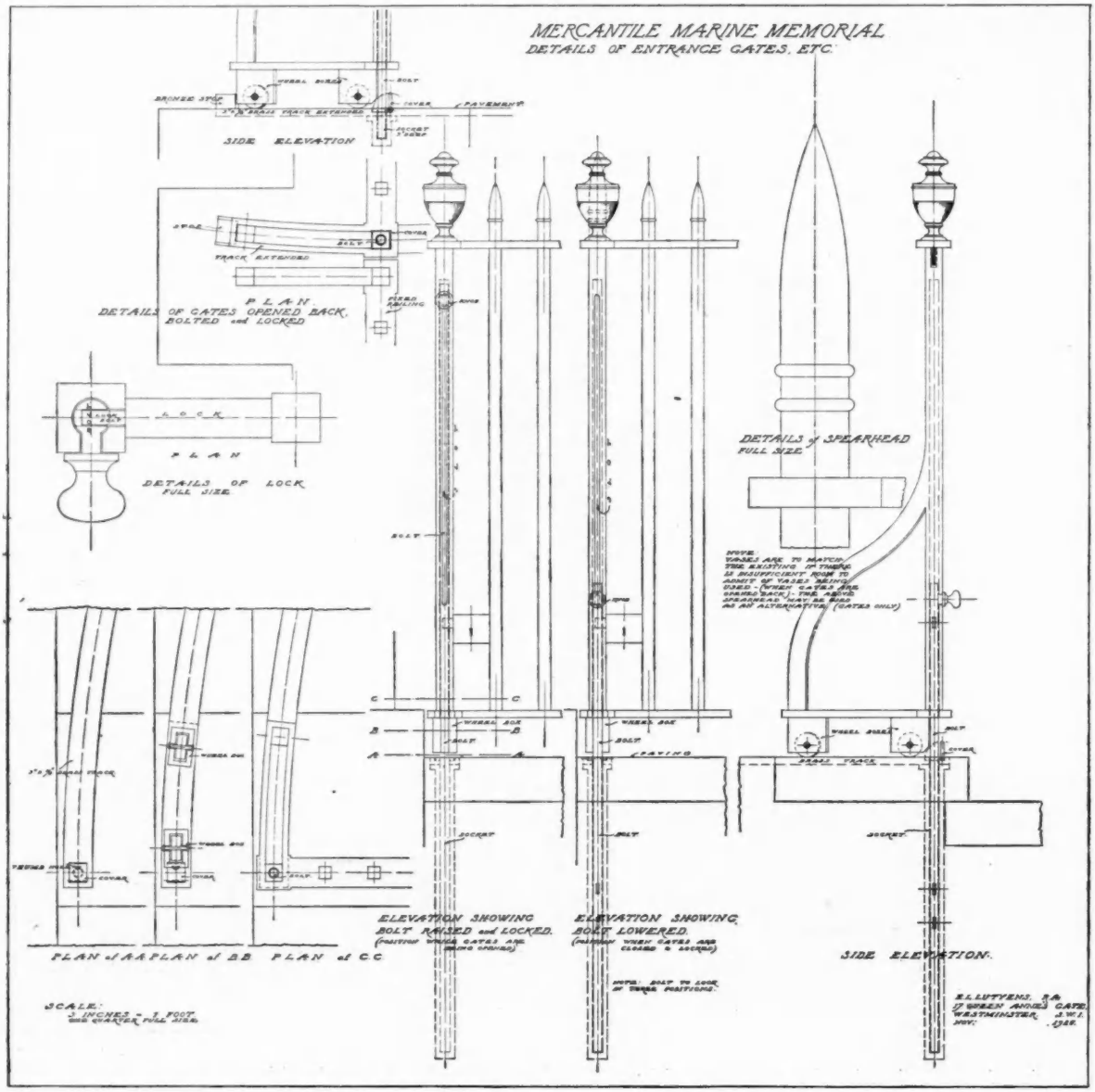


[By Sir Edwin Lutyens.

Half of the longitudinal section through the memorial; sections through one of the bays, of which there are three on each side; and section through one of the two end pedimented features. The memorial is 64 ft. long, 24 ft. high at the ends, and 35 ft. in the centre

A photograph; and details of the entrance gates and railings. The gates are run back over a quarter-circle brass track. An ingenious bolt is designed to lock the gates in three positions. When they are being opened this bolt is raised from the ground by a knob and locked in position; when the bolt is lowered, the gates themselves are locked.





The Mercantile Marine Memorial, London, E.C.] *[By Sir Edwin Lutyens.*

A STONE HOUSE IN SHROPSHIRE

DESIGNED BY BUCKLAND AND HAYWOOD



A view of the entrance front at Hammer Hill, Romsley, Kidderminster, showing the lily pond. The main entrance leads through a lobby, with adjoining cloak-room, into the hall, the three windows of which are seen immediately to the left of the porch, overlooking the forecourt. The large bay on the right lights the drawing-room, and faces west.

HAMMER Hill, Romsley, was built a few years ago on the crest of one of the many undulations in the interesting countryside between Kidderminster and Bridgnorth.

The plans reveal a substantial house; affording rooms spacious, lofty and well-lit in character, if comparatively modest in number. On the ground floor there are drawing-room, dining-room and library, besides a large hall and loggia, and the service quarters, to which a separate wing is devoted. On the first floor, the counterpart of the long hall and its contiguous outer hall and servants' passage, is found a corridor, off which, or its landing, open the main bedrooms, five on the south front of the house, and the sixth cutting into the northerly wing. At this level, too, a billiards-room has been planned, situated above the loggia. A heating chamber and wine-cellar are in the basement.

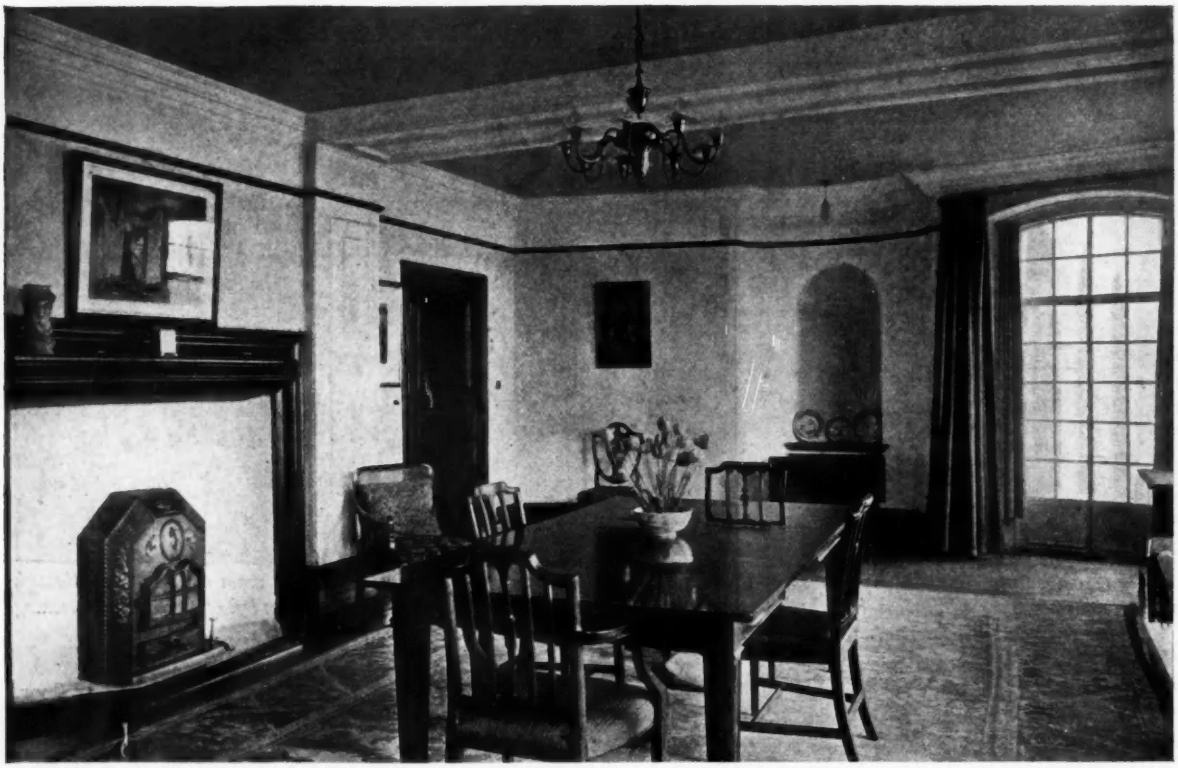


The entrance gateway, and one of the lodges. The photograph gives some indication of the undulating countryside. Extensive use has been made of stone found on the site.

A quantity of stone and other materials was found ready to hand on the site,



The south or terrace front has, as its principal features, a garden porch, occurring where the main stairway runs up from the hall, and an arcaded loggia, isolated from the living quarters, though conveniently entered from the dining-room via the terrace.

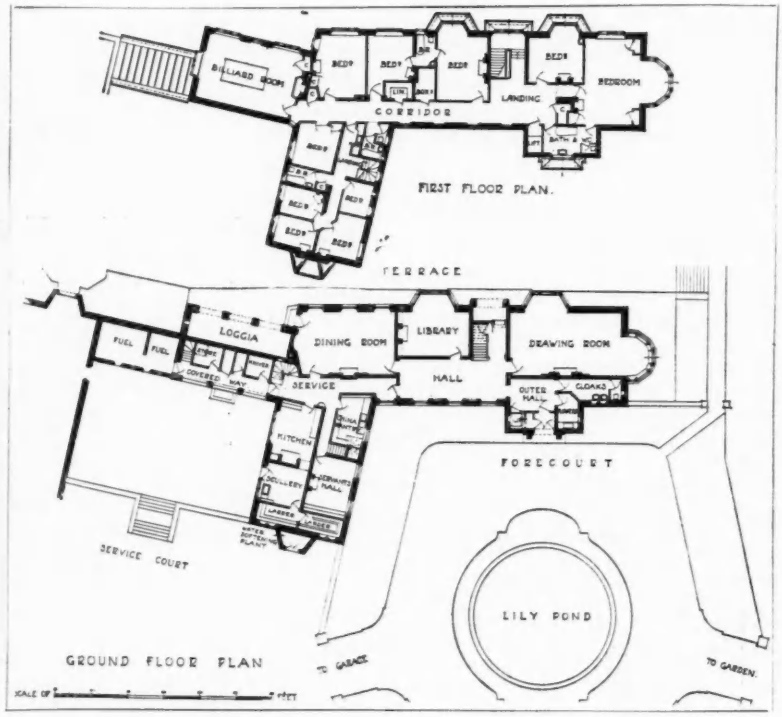


The dining-room is an oblong, with three windows on the right (not here shown) overlooking the terrace, access to which, and to the loggia, is also given through the glazed doors seen ; and an alcove in the end wall. The door on the left is for service.

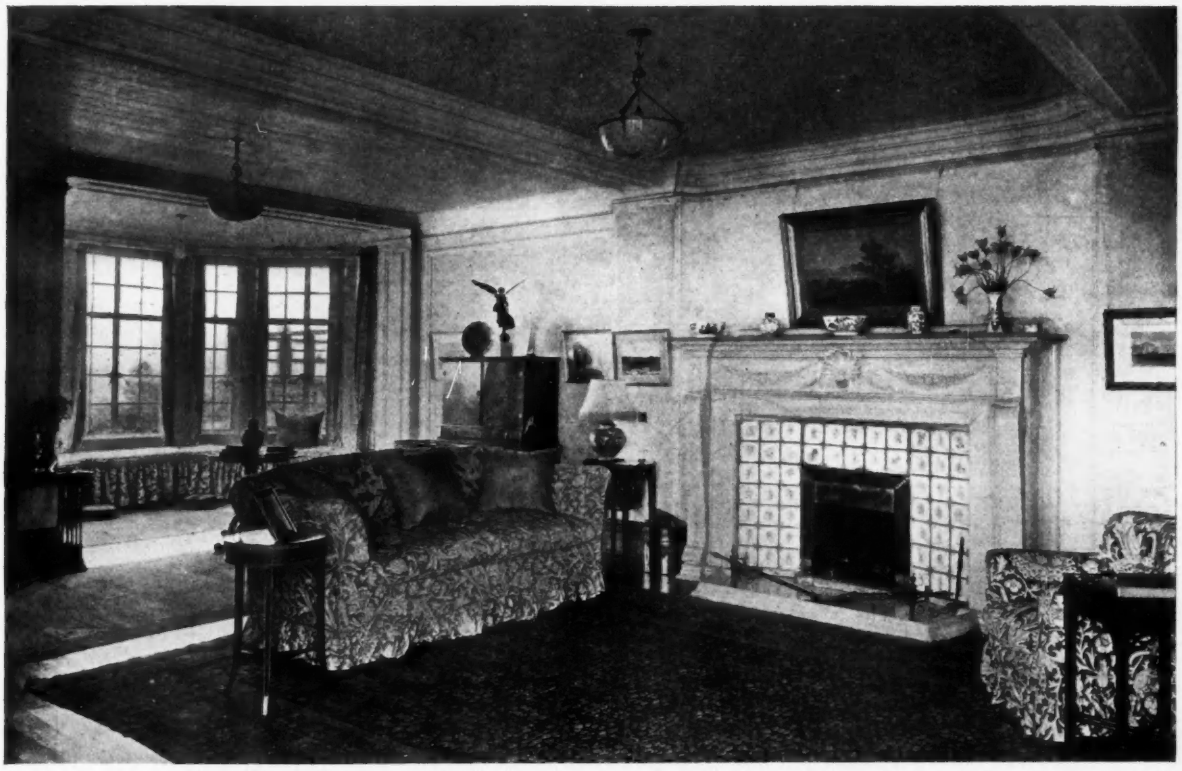


Hammer Hill, Romsley, Shropshire.]

One end of the hall : through the open door on the left is seen a glimpse of the drawing-room ; through that on the right, the outer lobby.



On both ground and first floors, servants' accommodation is concentrated in the northerly wing, though an extra bedroom is placed over the kitchen. The billiards-room is built over the loggia and the storerooms, etc., that flank it.



In the drawing-room, in addition to the large semicircular bay shown, there is another spacious three-sided bay in the wall opposite to the tiled fireplace. It is the largest living-room in the house: 31 ft. by 17 ft. 6 ins.

and the walls, not only of the house, up to first-floor level, but of two entrance lodges in the grounds, were built of this local stone, with quoins and moulded work of Hollington stone. The upper portion of the walls is formed of brickwork, faced with stucco, and heavy grey slates were used for the roofing.

The presence of the materials mentioned lent itself to the enclosure of about an acre of the grounds with walls built of stone and pisé-de-terre, in order to give protection against driving winds. Here there are the beginnings of a very interesting garden, planned by the architects.

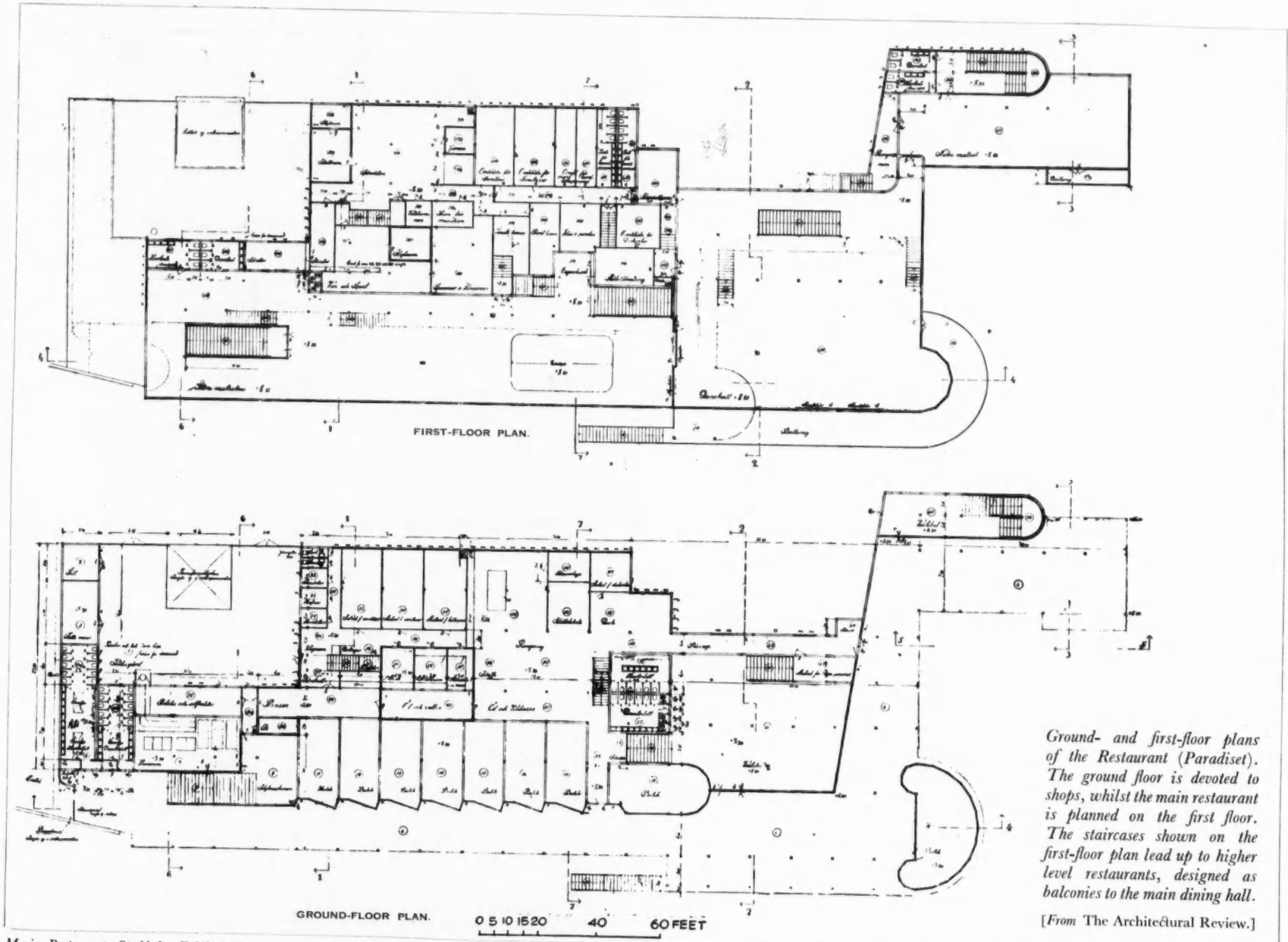
The main entrance to the house is on the northerly front, and here a forecourt has been formed, with a lily pond as its central feature. On the other front the ground has been terraced, and flights of steps at the centre and west end lead down to a large lawn and a transverse terrace, respectively. On one side of the latter are the flower beds of a formal garden; on the other is a rock garden. Not quite parallel with this western terrace, on the other side of the central lawn, runs an eastern walk, with herbaceous borders.

The contract price of the house was approximately £20,700, not counting the value of site materials.



[*By Buckland and Haywood.*

This corner of the best bedroom corresponds to that of the drawing-room illustrated above. On either side of the bay window are cupboards, the door of one of which is seen; the other door on the extreme right leads to a bathroom and lavatory.



Ground- and first-floor plans of the Restaurant (Paradiset). The ground floor is devoted to shops, whilst the main restaurant is planned on the first floor. The staircases shown on the first-floor plan lead up to higher level restaurants, designed as balconies to the main dining hall.

[*From* The Architectural Review.]

Main Restaurant, Stockholm Exhibition.]

[*E. G. Asplund: Architect.*

THE MORAL OF STOCKHOLM

A Revelation of the Mechanistic Idea

E. G. ASPLUND: ARCHITECT

IN a letter addressed to the Editor of *The Architectural Review*, and printed as a foreword in the August issue, His Excellency Baron Ramel, Minister for Foreign Affairs to H.M. the King of Sweden, writes: "With great interest I hear that you intend to devote a number of your eminent periodical to Sweden and in particular to Swedish architecture. No doubt modern Swedish architecture can offer a great deal of interest even to the foreigner, possibly more than one is inclined to imagine. The country is perhaps still too little known abroad to be fully valued in every respect. This (August) number of *The Architectural Review* will certainly contribute to spread knowledge about our country.

"The event that for you has actualized Swedish architecture is, of course, the Exhibition held in Stockholm, which has aroused many impassioned discussions in Sweden, as well as in foreign countries, on account of its new orientation and its unscrupulous rupture with architectonic principles hitherto prevailing."

An article discussing the Exhibition buildings has been specially contributed by P. Morton Shand. It is illustrated with many views of the Exhibition, including a portfolio of plates, with plans and working drawings of some of the buildings, illustrating the new methods of construction in glass and steel.

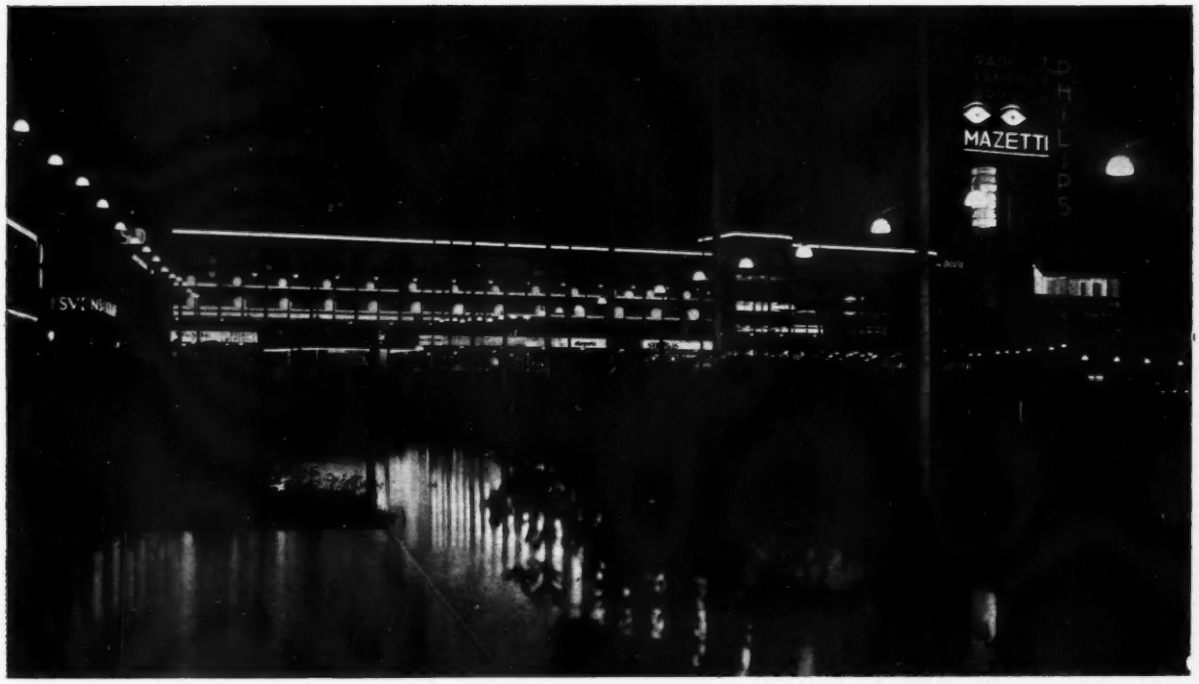
As Mr. Shand observes, Gothenburg Exhibition showed that Sweden had a natural gift for planning and organizing exhibitions such as no other country possessed. It was natural enough, therefore, that the world should have been waiting for the present Stockholm Exhibition with intense suspense. For one thing, it was on a much more ambitious scale than Gothenburg, and, for another, it was to be exclusively devoted to Swedish arts and crafts.

The reactionaries hoped that it would definitely stem the tide of "Cubism" (by which they meant the evolution of the one style expressive of our own age and not hypnotized by the dead hand of past centuries); the progressives, that Sweden would rally whole-heartedly to Modernism and give it the definite orientation which it still lacks.

It may as well be candidly admitted, he goes on to say, that we erect mechanist buildings, not because we must, but because we like them. Whatever the near future may bring forth, there is today absolutely no practical necessity for adopting the mechanist hypothesis in building construction. Asplund could probably have done the exhibition rather cheaper on neo-traditional lines in lath, canvas, and plaster. He did not do so because he did not want to do so. Mechanism may be the whim of the moment, but that does not alter the patent fact that there is more to be said for it than for any other.

Thereafter, he points out, the world will look up to Sweden as the supreme exponent of a Modernism which has succeeded in finding its own soul and embellishing itself with a purely mechanist grace, just as till yesterday it regarded her with such ravished eyes as the ultimate expression of a daintily fragile charm, pure, delicate and aloof as the scent of some wild flower that defies the fashionable alchemists of the Rue de la Paix.

For the 1930 Stockholm Exhibition has at least taught us that the future of the machine as an integral organ of modern culture is assured; and that its technical perfection as an art-form is only a matter of time. In it there lies the germ of an Augustan architecture magnificent enough to satisfy both the conditions and the aspirations of a great, a golden age, and worthy of man's ultimate enfranchisement from the tyranny of matter and the superstitious terrors of his own timid and hide-bound imagination.



[*From* The Architectural Review.

The front of the main restaurant of the Stockholm Exhibition, which forms the focal point of the promenade and faces the distant entrance. It is built of steel, glass and vitrolite. The moons are large balloon lights inside the main restaurant, which is planned on the first floor.

[*E. G. Asplund: Architect.*

[*From* The Architectural Review.]

Main Restaurant, Stockholm Exhibition.

ARCHITECTS' RESPONSIBILITIES

Questions of Negligence and Liability

MUCH interesting information concerning the responsibilities and liabilities of the architect —and, incidentally, the engineer—was given by Mr. W. T. Hills, F.S.I., in reading a paper at the annual general meeting of the South-Western Branch of the Institution of Structural Engineers.

An architect or engineer may act in four distinct capacities: 1: That of designer only, until he is instructed to obtain tenders or to proceed with the work of construction. 2: That of agent to the building owner, and supervisor from the commencement to the completion of the work. 3: That of quasi-arbitrator between the parties, which means that a person must in fact (though not with regard to procedure) act as arbitrator between the parties in respect of matters which are left to his judgment by the contract. 4: That of arbitrator. His duties and liabilities in these various capacities are quite distinct.

Where the engineer, or architect, acts on account of his skill or professional knowledge as quasi-arbitrator to determine some points between two parties to a contract, he is not liable, says Mr. Hills, in that capacity for: *a:* want of skill; *b:* ignorance of law; *c:* negligence, to either owner or contractor.

Mr. Hills sums up the position as follows:

When placed in a position in which he has to exercise his judgment impartially he is not liable for negligence in the exercise of that judgment, and it is not necessary that he should be, in the strict sense of the term, an arbitrator, as he is not bound to follow the procedure of an arbitration under the Arbitration Act, 1889, but is in the same position as an arbitrator in respect of the impartiality with which he must determine questions referred to him.

Where a person enters into a contract giving the architect this power, he cannot afterwards reverse his position and allege negligence. Where acting as quasi-arbitrator, the architect is not liable to the employer for negligence, but he is so liable when acting as employer's agent, and the question will always arise whether alleged negligence took place while the architect was acting in the one capacity or in the other; when invested with the dual capacity it is most difficult in the case of a dispute to decide this question. It would therefore seem that it is advisable to provide in any contract an arbitration clause rather than that the architect should be appointed to decide finally any matters arising.

The arbitrator or quasi-arbitrator may not substitute the judgment of another for his own, though he may leave ordinary or routine duties to assistants, but he is at liberty to consult experts for his information upon legal or technical questions arising out of any matter referred to him. Such advice or information must, therefore, be obtained from a proper and professional source, and an arbitrator must not adopt an opinion which he himself does not believe to be accurate. Any impropriety with regard to delegation of duties may serve as a ground for setting aside the award.

An architect is not responsible unless works have in fact been entrusted to him. If the client or owner insists on superseding the architect's judgment, and asserting his own opinion relating to construction and design or giving orders which are ignorant and unskilful, he cannot complain of the result if his orders are followed, provided that before complying with the orders, the architect disclaims all responsibility therefor.

An architect or engineer is not relieved from liability for professional negligence in regard to plans or projects which he has prepared and which may have been examined and approved by the client.

Even when the client has actually signed and passed the plans, it does not release the architect for liability for defects in the plans, or structural defects, which the client is incompetent to decide upon mere inspection.

If a professional man does not exercise his calling with ordinary skill and care he breaks the contract expressly made or implied with his employer. In such an event he is liable to dismissal and to forfeit wholly or in part his right to be paid, or he may be compelled to refund the whole or part of any fees which may have been paid to him.

Among the acts mentioned by Mr. Hills which have been held as proof of incompetence and lack of skill and to render the engineer or architect liable for negligence were the following:

An architect can render himself liable by advising a client that a building will cost less than the amount it actually does, if the excess of cost is so great as to show want of care or skill in making his estimate. He may be unable to recover any fees for his services.

Where an architect is instructed, and there is an expressed or implied condition that a structure can be executed for a fixed sum, he may not be entitled to recover commission in respect of designs which cannot be carried out for such sum.

Where an architect is restricted as to the amount to be expended and has obtained tenders which are too high, he is entitled to obtain further tenders within a reasonable time without exceeding his authority, if he does not put his client to any unauthorized expense or delay.

In considering whether he will allow the architect to obtain further tenders, or whether to refuse to proceed further, or to determine the employment of the architect, the client must act reasonably according to the contract between himself and the architect.

If an architect does not obtain tenders within a limited time, he may, by being guilty of neglect, render himself liable in an action for any damages which his client may sustain.

It is an architect's duty not to allow an employer to enter into a contract with a person whom he has any reason to suspect of being unable, from financial, or any other reasons, to carry out the work with all due speed and in a satisfactory manner.

If an architect fails to discover unsatisfactory work and defective materials, as he should do in the reasonable exercise of his duty at the time when the work was done, or when the defects should have been patent to a skilful person, he may be liable.

By the expressed terms of a contract a builder is generally freed from all liability after the architect has issued a final certificate at the expiration of the period of maintenance.

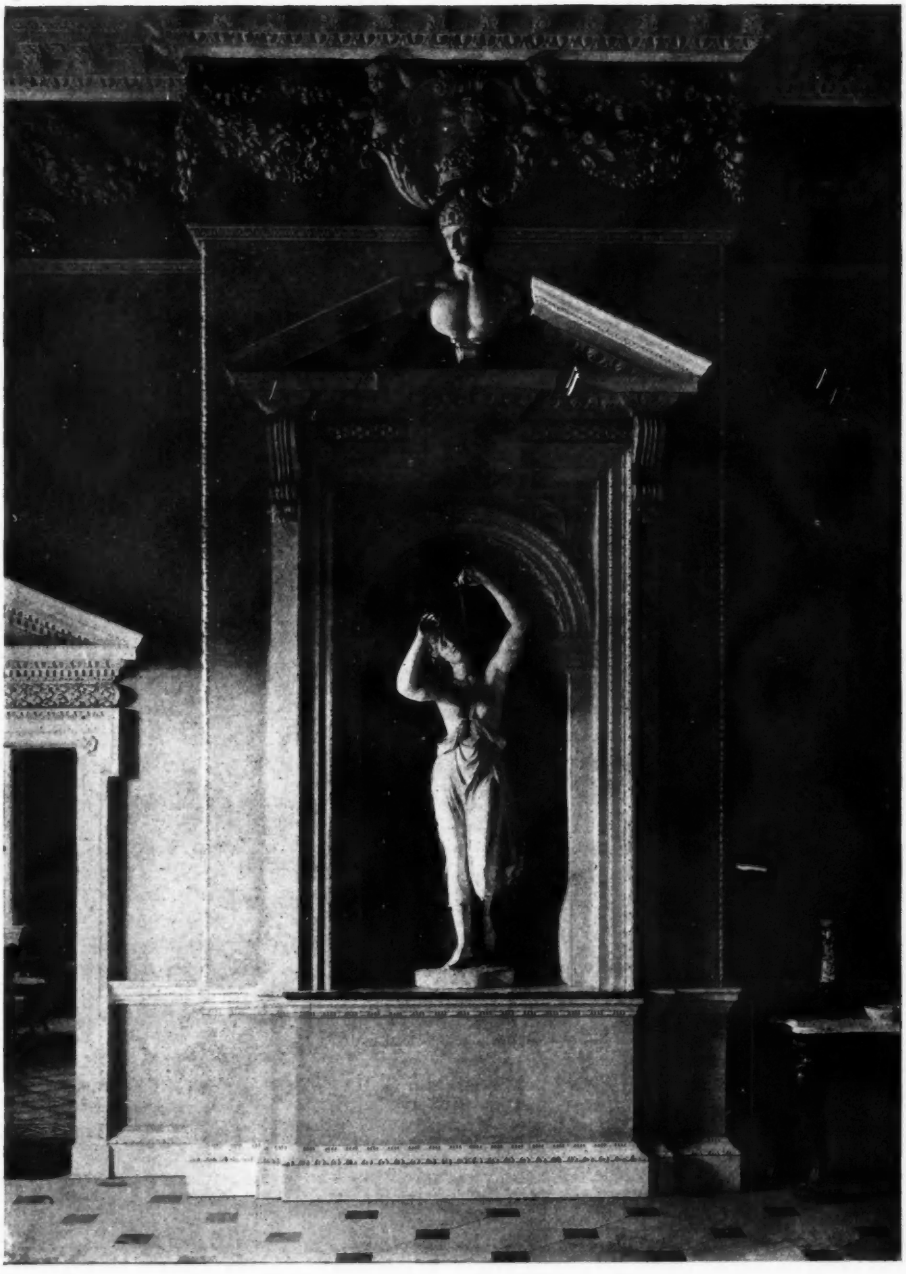
The liability of an engineer or architect for negligence towards his employer terminates under the Statutes of Limitation at the end of six years from the time of the act of negligence.

For fraud upon a contractor the architect remains liable for six years from the date when the person injured either has discovered the fraud or with reasonable diligence ought to have discovered it.

When an architect authorizes trespass into adjoining lands or excavates under adjoining houses it is submitted that he would not be free from liability until six years from the accrual of the damage from the trespass, such as subsidence of the land or house under which excavations have been made, inasmuch as in those cases each subsidence gives a fresh cause of action.

It is the custom for the architect to retain plans which he has prepared, even though such custom has been held to be unreasonable, and in any case he has a lien on them until final payment of his fees. It would appear that plans, etc., become, when paid for, the property of the employer, and that he can subsequently make use of these when he pleases.

The copyright, however, remains the property of the architect.



ENGLISH PRECEDENT No. 128

NICHE AT GODMERSHAM, KENT

During the first quarter of the eighteenth century the interior decoration of large houses became more classical. At the same time there was a revival of the manner of Inigo Jones. Niches were introduced as internal features for two reasons: primarily to form focal points or balancing motives, and, secondly, to provide recesses for antique sculpture. Owing to the immense importation of classical antiques the second reason is the most obvious one.

The influence of Lord Burlington, and the coterie of architects who flourished at the time, is apparent in examples of niches with consoles and broken pediments, such as the one illustrated. As examples of pure architecture such features are indefensible.

—[A. E. RICHARDSON]

LETTERS FROM READERS

Guildford Cathedral Competition

SIR,—May I suggest that others beside myself would be glad of some informed comment at an early date upon the competition for Guildford Cathedral. It is quite in the Liverpool tradition to invite portfolios from recognized church specialists, but to suggest that anyone should submit a "design for a cathedral" without reference to site or size, and, above all, without indication of the liturgical taste of the diocese, seems unlikely to help the promoters.

For example, a wealthy donor may turn the whole scale on the position of the High Altar, or a really fine essay in modern "early Christian" might be rejected out of hand because one of the canons liked Mr. Ruskin *so* much.

I understand that a site has been selected, and that there has been some considerable local canvass of the question, but competitors are apparently to be without guidance. It is all rather like the "monument to nothing in particular" which is said to have been designed by one of the leading architects recently.

There is the further point that younger men will be prejudiced from the start because they have no dusty portfolios of Gothic churches in the office, and will thereby be labelled as inexperienced in such projects.

"FANE"

Manufacturers and Bribes

SIR,—I have read *The Honeywood File* and *Settling-Up Honeywood* with a great deal of interest and no little amusement, but I have a bone of contention with Karshish, in the picking of which I think I shall be giving expression to the views of a great many other people besides myself.

If a narrative of this description is to have the verisimilitude which its author claimed for it at the beginning of the series, it is clear that Spinlove must be regarded as in most essentials the typical architect. In the same way, the characters with whom he comes in contact during the story must equally be regarded as typical.

It is, therefore, not a little distressing to find that throughout the story practically all the manufacturers who appear in it are depicted in the blackest possible colours, and represented as being prepared to stop short of nothing less than murder in their mad race for orders and their manufacturing of pretexts for unfair charges. In your last issue the picture is rendered still more unfair by the spectacle of a presumably reputable firm of brickmakers offering Spinlove a bribe of £25 to further their nefarious ends.

Surely this is going a bit too far. One knows that the picture is intended to be highly coloured, but at the same time one cannot help feeling that the impression is being given that the majority of architects look upon the majority of manufacturers as a set of sharks. This is not the case, as we all, including Karshish, know from our personal experience; but all the same, the implied insinuation leaves an unnecessarily nasty taste in the mouth.

"FAIR PLAY"

Group Specification

SIR,—I have read with interest Mr. Seymour Reeves's articles on the "group specification"; but I see little in them to convince one of the desirability of a change from the present method.

A group specification would no doubt be more easily understood by a client unfamiliar with the conditions of the building trade, but for those who actually carry out the work I consider the present specification in trades more suitable.

A specification is written in trades because the work is carried out by trades, and although trades are not now let separately, yet some, such as slater, plasterer and plumber, are almost invariably sublet by the general contractor, and so it is essential that each trade should be able to find out readily what work is required—no easy matter with a group specification.

The clause (to which Mr. Reeves so much objects) stating that all walls are to be plastered except where otherwise described, can be made perfectly clear either by briefly mentioning the walls not to be plastered, or by cross referencing, and this method will much more readily convey the information the plasterer requires, than expecting him to wade through pages of internal finishings.

C. W. PERRY

SIR,—It is quite true, and I agree with Mr. T. Sumner Smith's remarks in your last issue, that I am acquainted (in practice) with but one type of specification. I am very grateful to Mr. Smith for his clear exposition of the types and usages of specifications, because I have had doubts for some time as to the efficacy and equity of specifications as represented by the practice in Oldham and district. I have been conscious at times of the rumbling dissatisfaction of contractors both as regards specifications and quantities.

However, amongst architects in our district the idea prevails that a specification is necessary only for a contract without bills of quantities, and not necessary when bills of quantities are supplied. The bills of quantities form the basis of the contract, acting as a schedule, and any variation, whether by increase or decrease, is rectifiable at the squaring up of the contract.

I should be pleased to learn what obtains in other districts regarding bills of quantities and specifications.

I should also like to know if there is any book dealing with this aspect of the subject. One learns very little about the relative values of specifications and bills of quantities except by experience.

LYNN C. DOYLE

Lighting the Bodleian Library

SIR,—I was interested to read in THE ARCHITECTS' JOURNAL, for April 23 last, page 660, a description of the precautions taken to avoid fire risk with the electric lighting installation at the Bodleian Library, Oxford. The precautions which have been taken are, of course, excellent. It occurs to me, however, that in view of the great value of the contents of the Bodleian Library, it might be worth while to go a little further and make the installation into what I believe would constitute a perfectly safe one. To do this, alternating current is necessary, therefore if direct current is in use, a small rotary converter would be required to change the supply to alternating current. This would remove the danger of producing an electric crater and consequent long arc and high temperature in the event of an arc taking place.

Once alternating current is in use, two further precautions could be taken: either small transformers could be used in the distribution circuits so that the possible short circuit current would be reduced and the amount of power which could be fed into a fault would be so small that a fire is hardly conceivable, but the better plan, I think, would be to raise the frequency of supply to about 300 cycles per second, which Prof. Thornton's investigation into colliery work shows reduces the fire risk to a negligible value.

Alternating current at 300 cycles could be obtained from the direct current supply by a suitably constructed rotary converter, or from an existing alternating current supply by means of a static frequency changer. Both of these devices are quite inexpensive, and I believe that the adoption of either of these methods would greatly reduce, if not entirely eliminate, the fire risk.

L. C. GRANT, M.I.E.E.

Settling-Up Honeywood : xii

DRY ROT APPEARS

BY KARSHISH

(H. B. CRESWELL)

Sir Leslie Brash, the owner, has complained of various defects, of which the failure of the paint is alone of any seriousness, and has raised outcry at the total of the extras claimed by Grigblay, the builder, of which exact details have still to be settled by the architect, Spinlove.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 11/8/26.

I think you will like to know that after considerable trouble I have at last succeeded in securing refund of ninety-two pounds which was overpaid to the manufacturer of the facing bricks by mistake.

With kind regards,

Yours sincerely,

Spinlove's guardian angel seems to be resting after the heavy task of seeing him safely through his struggle with Hoochkoft ; for though we have had many examples of Spinlove's impetuous folly, he has never surpassed the adroit idiocy of this letter.

It is obviously desirable to avoid pushing poor old Brash's dislocated nose down into the extras account, yet Spinlove here goes out of his way to do so. Not only is any letter at all quite unnecessary, but Spinlove entirely discredits himself by vaunting his achievements. His childish impulse evidently was to court Brash's esteem ; but to do so it was important for him to put that strange face on his own perfections which Shakespeare tells us is the witness of excellency. His noisy acclaim of his own scanty merit, which he represents in the worst possible light, can only make his client sick with distrust. If Spinlove had merely allowed the fact to emerge without any exhibition of complacency, his client would have been favourably impressed with his capacity and devotion ; but what is Brash to think of an agent who writes, with kind regards, applauding himself for making a merchant give back money that ought never to have been paid ; and who breaks the news with " I think you will like to know . . . " as though such glad tidings were beyond all imagining ?

The explanation no doubt is that Spinlove, in the exhilarating moment of victory, is moved to demolish the adverse criticism of Brash's last letters ; and writes, as he so often does, without pausing to consider what he is doing.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 13/8/26.

I was, of course, gratified to receive the intimation communicated by your missive, but you must permit me to convey the comment that the considerable difficulty you experienced in exacting repayment of an erroneous disbursement does not favourably impress me with the expeditious conclusion of negotiations for settlement. May the interrogation be permitted *why* the excess amount was paid to these grasping manufacturers; how many more of these irregular disbursements have been allowed; and when—may I ask again—shall I eventually receive the detailed statement of account so often promised ? This account, it is now obviously clear, will have to be carefully audited by qualified accountants.

My lengthy negotiations with the Riddoppo Company, anent the failure of the paint, are now approaching termination, and I shall shortly have further communications to indite.

Yours sincerely,

Brash's auditing accountants will not get far with Grigblay's statement of account, and are likely to raise many more questions than they can understand the answers to, so that the resulting turmoil will bring Brash much more suffering than consolation. The proposal itself is, however, futile : Grigblay would refuse to allow interferences, and Spinlove and Tinge (the quantity surveyor) would support Grigblay, for under the contract Brash has agreed that the architect shall decide all technical matters and questions of fact, and that the quantity surveyor shall measure and value all variations, so that these auditors would have no standing.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 14/8/26.

In reply to your questions :

(1) The excess payment arose from the manufacturer supplying bricks some of which I condemned as not up to sample. He then supplied a better quality for which he charged a higher, unauthorized, price. In order to secure a refund I had to make good my contention that he was not entitled to a higher rate than that quoted for bricks to approved sample.

(2) None.

(3) Directly I receive it.

Yours sincerely,

Spinlove's hackles were erect when he wrote this.

MISS PHYLLIS BRASH TO SPINLOVE

Dear Jazz, 14/8/26.

Mum is away so what about a beano on Saturday sans all parental tennis crocks; just Snooty, Biff, Woggles, Boojum, you and me—a whole afternoon of fast and furious. Boojum wants Snooty for keeps, but don't let on as it's most *frightfully serious*. Boo served *hat fulls* of doubles last Thursday and poor Snooty dunno where she are. Buzz in early and bring tuxedos and pys as the caboodle flits to Bingham's at nine. Only the usual old rampage but Porky B with two snotties out of his old bum-boat are there on a week-end binge and we shant go home till the Hullaballoo-bala-balay. I'm *perfectly* potty but you know what I mean.

Now don't scream, but :

There's suthin' funny amiss, Miss;
Along by the pantery sink.

Thus our Judith cussically obsairve (see Art. Ward) jerking poetry in your honour. Seriously, the suthin' funny is decidedly dud. Dad is having the paintwork scrubbed to keep it from flaking off and today the fairy hand of Judith burst the wood thingy that runs along under the sink. It is evident suthin' is amiss, for the wood is bulged, and cracked and woolly, and seems to be crumbling and it is very much rather all along under the windows in the kitchen. No one dare tell Dad except Mum, and it is a shrieking necess to have suthin' done before they come back in three weeks' time. Dad joins her on rest cure next week.

Meet the posh cubby hole and patent pocket nest Mum has made of the box-room ! You really never ! It's *too* dilly ! Twice as good as a caravan ! Copied from the " converted attic " at the Ideal Homes Exy but *ever so much nicer* as the window is simply microscopic and it is all dim and penurious, and the roof slopes so that you can only stand up near the middle but, of course, when its a case of sits there is tons of room. The windey stairs are absolutely thrilling and there is the most dinky furniture you ever and Mum and I simply *cuddle ourselves* there. Mum bought an old dud grate she saw lying in a cottage garden for *one and ninepence*, which was a bargain as the man asked two shillings at first; and Grig's people made a fireplace with it. Mum is trying to find some old oak beams so that it will all be posher; and old panelling for the sloping part where the white comes off. We will have tea up there on Saturday.

Yours

PUD.

Mum is going to be psychoed.

This letter has probably been preserved to us because of its intimation of dry rot ; for that fell disease, which is a more fierce enemy of new houses than of old ones, is here clearly indicated. We now know why Lady Brash asked Grigblay to arrange a fireplace in the boxroom.

SPINLOVE TO GRIGBLAY

Dear Sir, 17/8/26.

I was at Honeywood during the week-end and it was pointed out to me that the skirting under the pantry sink is crumbling away like touch-wood. I imagined that water from the sink had rotted it, but there is no sign of wet, and the skirting along the outer wall of the kitchen is going in the same way. It is clear that the wood was not properly seasoned and it will be necessary to renew these skirtings at once.

Yours faithfully,

It seems that Spinlove has never seen, or smelt, dry rot; but one would think that he might have guessed what the extraordinary condition was due to. To attempt to cure the trouble by fixing new skirtings would be like trying to extinguish a fire by throwing fuel on it. The only remedy is to remove the whole of the rotted wood, to thoroughly sterilize surroundings and to discover and end the cause of the outbreak.

GRIGBLAY TO SPINLOVE

Dear Sir, 20/8/26.

We gathered from your letter that dry rot is the trouble and yesterday sent over our shop foreman Hassoks, who says no great harm done but it has got into the back of the china cupboard. He pulled the angle scotia off and there it was five feet up, but does not seem to have taken any hold. He says it has started on the edge of wood-block flooring but not gone far he thinks. The kitchen is not so bad, but there is a soft place in the skirting at foot of stairs and it sound dead all along, Hassoks says, so it has got a hold there too. We do not know cause as Hassoks reports walls seem dry as a bone. Perhaps you would like to meet Mr. Grigblay at the house and decide what best to be done, and if you will appoint a day we will send over to take out the cupboard and open up for your inspection.

Yours faithfully,

This is a bad business; but how bad remains to be seen.

Dry rot is a disease of timber caused by various species of fungi which feed on wood, penetrate it and destroy it. Infection is by contact with diseased wood, or by spores latent in it, borne on the air or conveyed by dirt. If conditions favour its growth, dry rot may be regarded as inevitable; if they are unfavourable there is no danger. Favourable conditions are the coincidence of damp with warmth and lack of ventilation; and it is particularly the responsibility of architects and builders, as the law decrees, to so design and build that those conditions shall not anywhere arise. As warmth is always present in a building, and it is impossible to ventilate every cranny of it, damp is regarded as the prime cause of dry rot. The need for entire prevention of damp is, therefore, always in the mind of the architect, the builder, the clerk of works and the foreman in charge. Ventilation, by carrying away evaporation, is a safeguard against "damp." The beauty of dry rot—in the opinion of its admirers—is that when it once gets going it sends out, with devastating rapidity, thread-like tendrils which carry moisture yards from the source over the surface of walls, and even through them, and which multiply to form mats of dense, cobwebby filament, that collect moisture from the air and so set up and maintain new centres of growth from which new foraging tendrils spread. Thus the good work continues, so that one solitary brick carelessly thrown into the broken rubbish under the concrete foundation of a wood-block floor, and disposed in such a way as to conduct damp from the ground to the concrete, may set up in the wood blocks dry rot which in a few weeks will have travelled to the space behind skirtings, invaded the back of the door linings, passed into the staircase and involved the first floor before its presence is anywhere noticed. The circumstances that give rise to dry rot are innumerable, and are a continual source of interest and pleasure to irresponsible observers; but the conditions of damp, combined with warmth and lack of ventilation, are always present.

Two days after a radiator is installed below a sliding sash window in an unfinished house, dry rot has started inside one of the jamb casings and involved the whole of it; eighteen months after a roof is finished by pointing the tiles without ventilating the roof-space, sagging outlines reveal that the whole of the inside surface is a mass of cobwebby fungus, and that the timbers are perished to the point of collapse; and, as in a case made famous in the Law Courts a quarter of a century ago, the floors and joinery of a hospital are renewed at a cost of several thousand pounds because the wooden pegs driven into the ground to fix the screeding-level of concrete floor-foundations were not taken out. What exactly has happened at Honeywood we do not know, but some source of continuous dampness in contact with the skirting, or with other woodwork near to it, is indicated.

SPINLOVE TO MISS PHYLLIS BRASH

21/8/26.

I am coming down on Thursday to meet Grig about the pantry do. Am arranging to get all done before the two P's return; but there will be carpenters to take out the china cupboard so will you get the crockery cleared.

Apparently Spinlove has some sensitiveness about typing his superscription and subscription to this lady. It is, of course, inadvisable to delay the work, for the harm is growing, and it will occasion less upset—both physical and moral—if all is completed before "the two P's" return.

Spinlove's light-hearted assumption that the trouble can be readily cured, when he does not yet know the cause of it, is lamentable. It is clear that not only has he had no experience of dry rot, but that he has no knowledge at second hand, or he would view this manifestation of it with consternation. The rot in the pantry and kitchen may be only first evidences of an outbreak involving the whole of the ground-floor skirtings, which may itself be but the first visible flicker of flames that are raging out of sight in the floors, and which have already secretly invaded the cavities at the back of panelling and of door and window linings and of fireplace surrounds. Even this does not measure the full dimensions of the possible catastrophe, for not only has the damaged work to be restored and all parts near it to be doctored to destroy the infecting spores of the fungus, but the cause of the outbreak must be fully proved and, when proved, then entirely eradicated; and as this cause may be fundamental in the design of the structure or inherent in the materials employed, the little pieces of decayed skirting, as every experienced architect knows, may, as likely as not, signal a great calamity.

SPINLOVE TO WYCHETE, P.P.R.I.B.A.

Dear Mr. Wychete, 24/8/26

You have been so extremely kind in the past in advising me that I hope you will not mind my troubling you, but I have a case of dry rot which I do not know how to deal with. I enclose linen prints of $\frac{1}{8}$ in. scale plan, and $\frac{1}{2}$ in. section of the outer wall.

The house has been occupied now for six months, and the deal skirting along the outside (north) wall of the kitchen, pantry and hall (up to the stairs) is rotted, and the under edge of the Columbian pine wood-block flooring has begun to go in places. The larders, scullery and cloaks along the same front are tiled and have tiled skirtings. I should mention we pulled up some of the wood blocks, but there was no sign of rot except just at the outer edges, and no evidence of rot anywhere else; and though the growth had run up behind the china cupboard the wood was sound.

The walls behind the skirting were "bone dry," the builder said, but he was doubtful of the concrete under the block floor. We cut this away where it lies against the wall, and the builder then said he understood the cause.

If you look at the half-inch detail you will see that the dampcourse lies just below the concrete foundation of the floor; but the floor was lowered $1\frac{1}{2}$ inches after the dampcourse was built, and the bottom of the concrete comes an inch *below* the dampcourse. The brickwork below the dampcourse is full of water, and the builder says that damp is drawn into the concrete where its lower edge lies against the wet bricks, and that this has started the dry rot. Can this be possible? He also says that the water creeps up between the bricks and the concrete, and gets

into the brickwork above the dampcourse, but I could not see any evidence of this. Do you think he is right? I could see no sign of damp myself. Before we cut away the concrete he thought the trouble might be due to the rain, which beats through the outer 4½ ins. of the hollow wall, collecting on the dampcourse, and getting into the inner wall, but he forgot that the hollow goes down *below* the dampcourse.

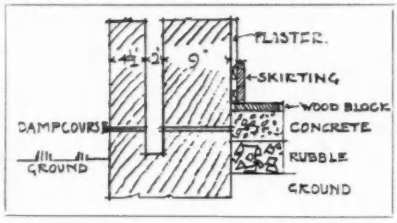
The main question is—If the builder is right, what is to be done? He says he cannot advise me; that he built as I directed and cannot accept responsibility. I pointed out that *he* suggested lowering the floor so that the threshold of front entrance would line up with the brick joint and make a neat finish; but he says that the decision was mine and that he followed my directions in lowering the floor.

The north wall of the billiard room is panelled in oak and the floor is of oak boards nailed to fillets let into concrete. The panelling is ventilated behind by openings in the skirting and in the top of the capping. There is no sign of dry rot here, and the builder says he thinks there is no danger.

I should be so very much obliged if you will tell me what you think I had better do, if it is not troubling you.

Yours sincerely,

The sketch below illustrates the positions of the floor and dampcourse described.



The eminent Wychete must be a good friend indeed to lay himself open to the fatigue of solving posers of this kind; and Spinlove must have great confidence in his opinion or he would consult a friend closer at hand instead of writing to Manchester, where, as his address indicates, Wychete operates. We know from earlier letters that the site of Honeywood slopes towards the south, and that it is only the floors on the north side that are laid directly on concrete. The others are carried on joists supported on sleeper walls.

[NEXT WEEK: XIII—FRED BLOGGS INTERVENES]

ART AND INDUSTRY

"Are Art Schools Assisting Industry?" was the subject of a paper read by Mr. Henry G. Dowling at a representative gathering of art masters from all parts of the country, held at the Victoria and Albert Museum, on July 31. Below we print extracts from Mr. Dowling's paper.

THERE has been a radical change of outlook since the days when the old art school only sheltered those who were anxious to boast of art as an accomplishment, or were desirous of becoming art masters. Such a system was largely responsible for the superstition still to be met with—that the artist is a soulful dreamer, an individual to be preserved from the imaginary destructive influences of commerce.

As a peculiarly manufacturing nation, it is well that such is the case, for the connection between art and manufactures is most important. It is well that art is not now solely the beautiful, ennobling and vital thing known as "fine art" with the old-time official scholastic phrases, grandiose and aloof from the common wants of man. Today it has far-reaching effects on every phase of domestic and industrial life

Too long there has prevailed a wrong conception of the status of the artist, who was looked upon as being superior to the craftsman. It was generally conceded that the man who painted a picture or produced a piece of sculpture reached the highest means of expression, whereas he who served the community by carving or gilding a frame, or painting a carriage, was merely a skilled artisan and was in an inferior category. Such art assumptions and decadence of thought are outcomes of a non-producing age. The outlook on life in general has materially changed that, and the production of useful commodities for the many is now esteemed of greater importance than the production of luxury for the few. Parallel with this, progressive manufacturers are at length appreciating that artistry in their products is a commercial asset, and though this may be true of a small proportion only, yet together these two facts are attracting artists to industry. Our schools of art must function for this specific purpose.

Our industrial pre-eminence was gained in the first place by aiming at quality in production—quantity followed as a natural consequence of the appreciation of good things, and we have inherited the responsibility as well as the glory of long built-up artistic traditions. The introduction of the machine ushered in an era of vast manufacturing activity, but tended to "dull" quality, with the result that craftsmanship became exclusive and its products were reserved for the patron of the arts, so that art and industry drifted apart. The modern school of art exists to bring them together again, and I am confident that records show many successes of students who have gone into industry imbued with imagination and possessing a sound knowledge of the principles of art.

And—discovery of discoveries!—the business man has come to the conclusion that there is money in art. Just think for a moment of the emphasis placed on design in the metal trades—of colour in gas ranges, of kitchen fittings and containers, of bathroom fittings—all proving an interest in æsthetics and a willingness to make use of artists to express the age in which we live.

Indifference to opportunities will result in certain classes being claimed by science men. With the developments now in progress, disaster will positively ensue if proper recognition is not given to art-craft classes, such as painters' and decorators' work, cabinet-making and lithography—work that absolutely calls for definite guidance and control by an artist rather than a mere technician. Art masters must jealously guard such classes, and see that they develop them along right lines; otherwise there is grave danger of instruction being given merely to drill the student in what will only make him more useful for his particular job in the shop.

There is a demand today for creative artists, literally *architects*—men who can design things. It is therefore imperative that such men should be eminently practical and acquainted with the needs of this mechanized age. Line, colour, proportion are equally as important as fitness of structure. It has been said that in this age of movement in speed and photography the artist has been robbed of his recording function, but I believe all our ingenuity will be called upon before long to cope with all the demands of a discriminating public who insist that their artistic needs shall be diagnosed and met by trained specialists.

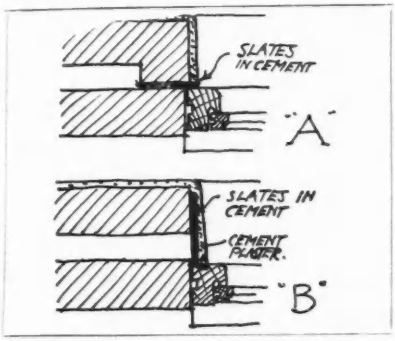
Lastly, I tender a suggestion to those in control of art education. I believe a national survey and report on art and its relation to industry would be opportune to ascertain, as accurately as possible, the present situation and the demands of our art industries as regards standards of design and conditions governing such standards. Such a report should be definitely objective in intention and procedure, and should most certainly be exhaustive in character. If responsible individuals prominent in art industries were invited to serve on such a committee, with instructions to make trade surveys and concrete recommendations, it would then be possible to adopt intelligent measures for the improvement of industrial art.

QUESTIONS THAT ARISE

Cavity Wall

T. F. C. writes: "*What is your expert's opinion on the following points? (1) In designing a two-story residence of concrete blocks on an exposed site, is it better to take the cavity all around the building, stopped only by the window and door linings, or to build the jambs of windows and doors, and corners of building, solid? (2) What is the best way of fixing window frames in a cavity wall that has not been built solid around the openings? (3) Which do you consider the better wall for a two-story dwelling-house in an exposed situation—a: a 12-in. solid concrete wall; or b: an 11-in. cavity wall?*"

(1) If jambs are built solid, without precautions as to dampcourse, driving rain will inevitably saturate them, and the advantages of cavity construction be lost. The two alternatives are (a) To build solid but unbonded, with a continuous slate dampcourse vertically as sketch A; (b) To take



These sketches (plans) illustrate the points raised in the accompanying query on "cavity walls."

the cavity through, subsequently closing up with slates set in cement and plastering thereon with cement undercoat as in B.

(2) Frames should be set in the outer thickness of the double walling, as in sketches illustrating (1).

(3) In a really exposed situation cavity walling properly built and safeguarded at openings is much more reliable. E. G.

Painting Galvanized Iron

A. G. B. writes: "*I have some galvanized iron pipes in a building which are, unfortunately, in a conspicuous position. The last pipes of this kind that I had painted I had trouble with—the priming flaking. Is there any special method of preparing I can specify?*"

I would suggest that in the case quoted the piping was not perfectly clean before painting. All such pipes should be cleaned immediately before painting with pumice stone and turpentine, to free them entirely from grease and dirt.

If a metal primer does not then adhere, a good practice would be to sponge over the surface with a solution of copper sulphate, about ¼ lb. to a gallon of water. This will develop a key to which any good primer will adhere after it is dry. The remaining coats can be applied of any desired colour.

P. T.

Location of Water Main

G. E. H. writes: "*I have a client who has recently bought a house in a country district. As the pressure of water in the house is rather poor, I have asked the water company to locate the pipe between the main in the road and the house, as the trouble may rest there. For this purpose the water company is having a trench dug on my client's land, along the side of the road. What is your expert's opinion on the following questions? 1. Can the water company call on my client to pay for this excavation? 2. Is there an instrument in the nature of a stethoscope or some electrical device by which the pipe could be located?*"

The particulars given by your correspondent are too meagre to establish absolutely the liability for the work indicated. Normally, when a water company connects a supply to private property, a stop-cock is inserted near the main, and liability for defects occurring on the consumer's side falls on the consumer. The company has usually authority to locate leakages and insist upon their repair, or, failing that, to undertake the work themselves and charge the cost to the consumer.

In the present case, it would appear that no stop-cock exists to indicate the point of connection. In such case the liability would appear to depend upon the actual form of the request made to the water company.

If your correspondent asked them to *indicate* the position of the connection, and they were unable to do so without excavating, they may have undertaken that for their own information. If, on the other hand, he definitely requested them to locate the supply on the consumer's own land, they would normally be entitled to charge for the work unless definite arrangements to the contrary were made.

In the event of a company making excavations on their own responsibility, in order to locate possible faults, the consumer is usually charged only with the cost of repairing, after having been served with an intimation that the defect must be remedied within a specified period.

Regarding instruments for locating the position of the pipe, there does not appear to be any such in existence. The stethoscope type of indicator merely indicates the flow of water through a pipe or cock, with which contact can be made, the vibration of the flow being amplified by the microphone of the stethoscope. The query appears to be one which can only be settled by reference to the water company concerned, and possibly their Act of authorization.

It might be as well to approach the company in a friendly spirit, and point out that the accurate location of the connection is in their interests, and that they should accordingly bear at least part of the cost. A friendly arrangement would unquestionably be more satisfactory than a contention as to liability, since the advantage is always on the side of the company.

A. H. H.

Joints in Flooring

M. J. M. writes: "*The ground floors of a house I built two years ago were constructed on dwarf walls and were of deal, tongued and grooved. They have since opened out, and there is a very objectionable draught when sitting at the fireplaces in the winter. Have any of your advertisers been able to provide against this, or could you suggest any method of caulking the open joints with tow, pitch or compo?*"

It should be quite possible to fill the open joints with "plastic wood," but as the joints are grooved and tongued it seems more probable that the draught enters between the skirting and floor, due to shrinkage of joists and boarding leaving an open space of about ¼ inch immediately opposite the air-brick vents. Fixing a quadrant fillet about ¾-in. radius, nailed to the *floor boards* in close contact with the skirting, is an easy cure for this.

E. G.

Old Beams

W. E. B. writes: "*I am carrying out alterations to a pair of old cottages in the country, which are constructed with a considerable amount of oak to walling and beams. The majority of the beams are covered with paper, and others are thickly coated with whitewash. Is there any preparation which will remove this without damage to the wood?*"

For the removal of paper and whitewash on old beams I have found the following preparation satisfactory:

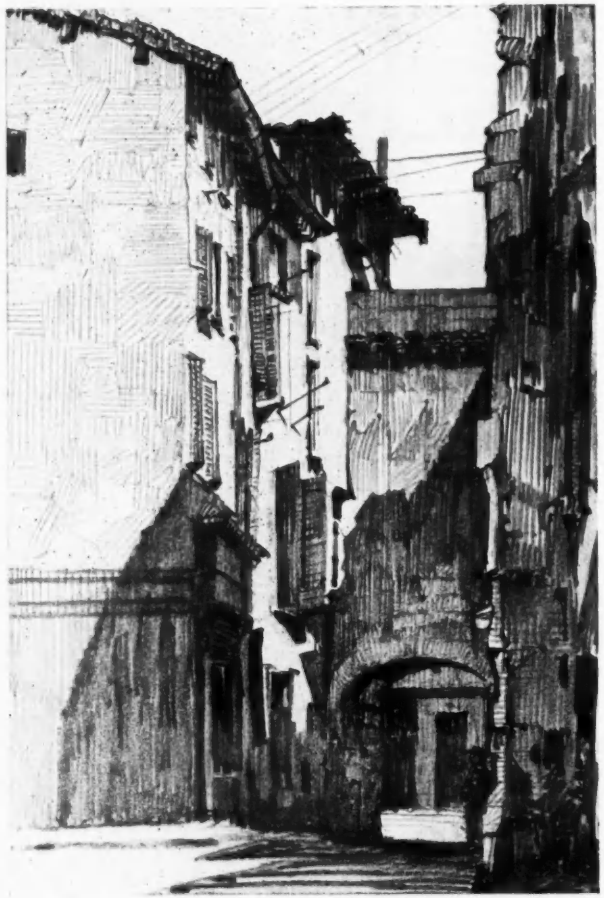
Wash over the beams with clean water and, while wet, apply with a whitewasher's brush a solution of American potash mixed with a small quantity of lime. Allow this to remain for nearly a day, and then rewash with clean water several times and allow to dry.

This will remove all whitewash and paper, and will restore the natural surface of the wood. F. L. B.

THE SKETCH CLUB

NINTH SESSION

DRAWINGS BY THE WINNERS
of the
FIRST and SECOND prizes
in the
June HOLIDAY SKETCHES COMPETITION



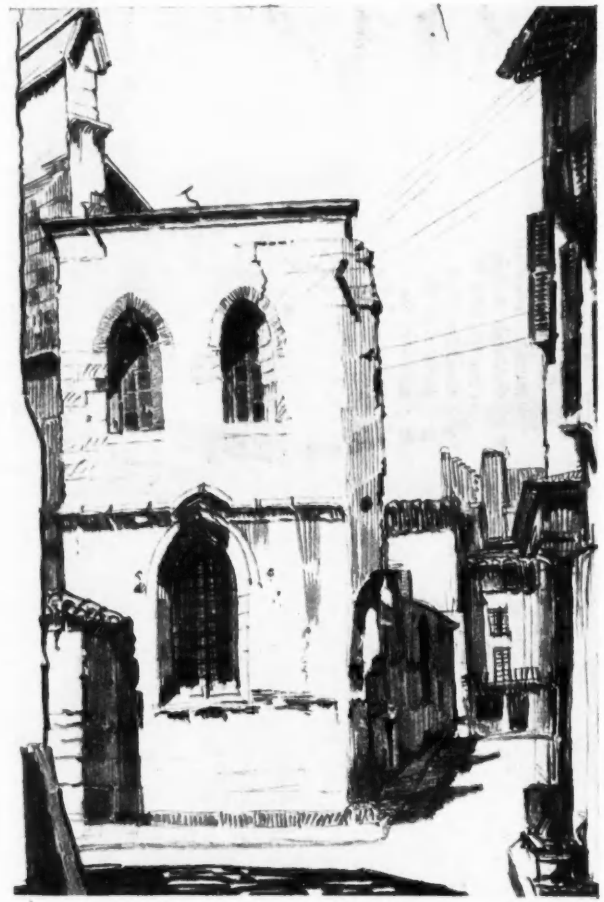
Entrance to Cloister Square of St. Pierre, Avignon.
By P. J. Westwood (Pencil and slight wash : 10¼″×7″)

THE south elevation of St. Pierre, Avignon (*frontispiece*), attracts one because of the long vertical lines of stonework, plain heavy buttresses, and concentration of ornament. The café at its base shows the scale. The west front (1512) has wonderful heavily-carved doors and carved stone canopies and surrounding arches. The interiors of the chapels are decorated with XV. century frescoes. The east end is panelled in wood, painted with scriptural subjects, all of the XV. century.—A low archway gives entrance to a delightful small square, formerly the cloisters. A shop built against the church wall, recently demolished, left the rough stonework on the right of the drawing. The plain stone wall above the arch has projecting tiles to the upper part and a plain stone parapet—



A Street in Avignon.
By P. J. Westwood (Pencil : toned paper : 12¾″×8¼″)

THE SECOND PRIZE DRAWING



East End of Cloisters of St. Pierre, Avignon.
By P. J. Westwood (Pencil : 11¼″×7¼″)

"THE Judge's House," or, more correctly, "Mompesson House," was built for Charles Mompesson about 1701, being contemporary with Wren's matured style, although there is no evidence of his association with it. The front is of stone throughout, including the cornice, and the doorway is linked with the window above, to form a central feature.—Steeple Row Gateway forms the north-western entrance from the High Street to the Close; it is a little backwater full of colour, the plaster frontage forming a charming contrast to the age-worn roofs and brickwork.—Ragdale Old Hall, a most picturesque old house, has fallen into sad disrepair and humble occupation. Originally Rahedale or Wreakdale, it belonged to Lord Basset of Drayton, and passed to John Shirley, who built

gives entrance to a delightful small square, formerly the cloisters. A shop built against the church wall, recently demolished, left the rough stonework on the right of the

A Street in Avignon.
By P. J. Westwood (Pencil : toned paper : 12⅜″×8¼″)

forming a charming contrast to the age-worn roofs and brickwork.—Ragdale Old Hall, a most picturesque old house, has fallen into sad disrepair and humble occupation.

drawing. The plain stone wall above the arch has projecting tiles to the upper part and a plain stone parapet.—The sketch on toned paper shows one of the old projecting houses whose height and character is most attractive.

P. J. W.

THE SECOND PRIZE DRAWING



Originally Rahedale or Wreakdale, it belonged to Lord Basset of Drayton, and passed to John Shirley, who built the oldest part in the middle of the XVI. century. His grandson, Sir Henry Shirley, in 1629 added the stone porch, emblazoned with his coat-of-arms. A. S.

THIS week the walls of the Sketch Club are adorned with six out of the sixty drawings sent in under the rules of the June competition. In addition, that which won the first prize is reproduced as frontispiece to this number. It is hoped to hang a further selection in future sessions. Meanwhile, the fruit of sketchers' July holidays is arriving : the closing date is two days hence, August 15. The attention of intending competitors is drawn to the rules printed on page xiv, especially that prescribing the use of motto labels ; several entries in the competition just closed were disqualified by reason of non-compliance with this condition on the part of their senders.

The Judge's House, in the Close, Salisbury.

By Alan Sherwin
(Pencil : 10″×4¾″).



Steeple Row Gateway, Ely.
By Alan Sherwin (Pencil : 8¼″×6¼″).



Ragdale Old Hall, Leicestershire.
By Alan Sherwin (Pencil : 8¼″×6¼″).

LITERATURE

THE ANNUAL REPORTS OF THE C.P.R.E., AND S.P.A.B.

IT is one of the remarkable things about the C.P.R.E. that it has been successful from the first. Five years ago very few people were interested in the preservation of the beauties of England. Today nearly every intelligent man is interested, and a vast number, actively interested.

There were several societies in existence before the C.P.R.E. was born, who were engaged upon work of preservation. They ploughed a lonely and not too fruitful furrow. The coming of the C.P.R.E., with ideals as lofty and a spirit much more combative, raised the need of preservation from a local to a national issue.

Two things the C.P.R.E. visualized as vital to their work. One was that they must pursue a policy of education and propaganda if they were to find any strong backing for what they had set themselves to do. The other lay in the realization that preservation was only half the battle, and that an entirely new mental attitude must replace the hopeless indifference of a vast section of the community to their surroundings, before we should hope to see England preserved and made beautiful again.

To a certain extent the public was ready to receive the ideas which the C.P.R.E. spread broadcast, but it is mainly due to the intense and burning activity of the founders, who used all the means of publicity they could command, that the active need for preservation, and the new feeling for decency in our everyday surroundings, got home to the man in the street.

Goodness knows, one may say, looking round in any direction, we have a long way to go. We have, it is true. But, thanks to the C.P.R.E., we are on the move.

The outstanding feature of the year, to those whose interest is in the state of the society apart from the result of its efforts, is the gift by Mr. Boies Penrose of £10,000, conditional upon an equal amount being raised by subscription, together with the gift of a similar sum by the Carnegie Trustees. Wonders may be done with voluntary help, but propaganda needs money, and the C.P.R.E. must live for some time on the support its propaganda engenders. Therefore nothing can exceed the importance of these two generous bequests.

It would be impossible here even barely to refer to the enormous activity of the society during the past year, for its work is carried on by branches all over the country, and through many constituent bodies. One may indicate its diversity by mentioning, on the one hand, the active part taken by the C.P.R.E. in Commander Hilton Young's Rural Amenities Bill, and, on the other, say, the setting up of litter baskets on a beautiful reach of the Thames. All are grist to the mill, and the smallest grain is the result of effort on the part of some interested person.

The Society for the Protection of Ancient Buildings is one of those bodies whose long and patient work has served to introduce the C.P.R.E. to a public less ignorant than it might otherwise have been, and who, in turn, are helped by the activities of the younger society.

One of the fruits of last year's efforts is to be seen in Mr. Jervoise's book of *Bridges*, published by the Architectural Press. Barns and windmills are also engaging their attention, and complete records are being taken with a view to reparation. These are particular efforts, but the annual report runs to many pages, covering a host of very varied examples where help has been given, interest aroused, and something bravely attempted, if not always successfully done.

E. M. F.

The Annual Report of the Council for the Preservation of Rural England, 1929: 17 Gt. Marlborough Street, Regent Street, W.1. Free.

The Fifty-third Annual Report of the Committee of the Society for the Protection of Ancient Buildings, May, 1930, and an Address by Professor W. R. Lethaby: 20 Buckingham Street, W.C.2. Price 2s. 6d. net.



From The S.P.A.B. Fifty-third Annual Report.]

Stanley Mill, Trearddur Bay, Anglesey.

THE NEW FACE OF LONDON

A City of Steel Cages

CONSTRUCTIVELY, the modern building is a steel cage, writes the Architectural Correspondent in *The Times*, with—except in the sky-scraper—approximately equal value in its horizontal and vertical members, to be covered with a skin of stone, brick, or other material; something completely new in the whole history of architecture. He says: Going by historical precedent, and in order to be traditional, the steel cage should work out its own architectural salvation; at any rate, we may say that, for lasting satisfaction, whatever style is adopted must make its terms with the steel cage. As may be seen anywhere in London, Renaissance architecture is doing this with difficulty, and we still have columns and arches that not only support nothing but have themselves to be supported at great expense, staircases cutting across windows, and other æsthetic as well as practical inconveniences. On the other hand, the modernists do not yet seem to have grasped the full architectural implications of the steel cage. Some, as at Adelaide House and the new Courtauld Building, St. Martin's-le-Grand, by Mr. Leo Sylvester Sullivan, emphasize the vertical members of its construction; others, as at the new Olympia, by Mr. Joseph Emberton, Messrs. Crawford's, Ltd., High Holborn, by Messrs. Frederick Etchells and Herbert A. Welch, and the New Victoria Cinema, by Mr. W. E. Trent, the horizontal; with no obvious reason, not even—as may be seen at High Holborn—architectural context. In the New Victoria Cinema the horizontal and vertical stressing of different parts of the same building even conflict with each other.

Prophecy is rash, but on the whole the contemporary buildings in London which are most likely to command the respect of posterity are the Underground Building and the new Horticultural Hall—particularly for its interior. These buildings proceed on the principle of seeing what you can do without—always a step forward—rather than on that of getting excited over functional and constructional expression. This is not to say that function and construction should not be recognized. All good architectural styles may be looked upon as a gloss or comment on a text—a text of construction. As a rule the gloss begins crudely, as in the earliest Greek, and gains in subtlety and refinement; when, as in the latest Gothic, the gloss overcomes the text, it is time for the style to go. With a new text of construction, such as the steel cage, it is better to reserve your enthusiasm for architectural gloss or comment until you are quite sure of all the principles involved.

At the moment the greatest centre of building activity is the area surrounding the Bank of England. Already, under the persuasion of Sir Herbert Baker, A.R.A., the Old Lady of Threadneedle Street is beginning to sit up and take notice over Soane's enclosing wall; the new Lloyds Bank, by Sir John Burnet and Partners, with Messrs. Campbell Jones and Smithers, and the new Westminster Bank, Lothbury, by Messrs. Mewés and Davis, are finished; the Princes Street block of the Midland Bank, by Mr. Laurence M. Gotch, with Sir Edwin Lutyens, R.A., is rapidly nearing completion; and the National Provincial Bank, at the corner, by Sir Edwin Cooper, A.R.A., is well on the way. All these buildings are good examples of modern Renaissance, but the prize for delicacy and refinement in the treatment of the stone skin must go to the Westminster. One wonders a little what will be the effect on dull days of the increased height of these buildings, and one cannot help feeling that setting back might begin below the height allowed by the building regulations.

Other buildings among the many that, whether in a traditional or a modernist style, inspire confidence in changing London are the front court of the British Medical Association building, Woburn Place, by Mr. C. Wontner Smith; the new Bechstein Hall, Brook Street—a little prone to "shape," in the sense in which it was applied indifferently to brawn, jelly or blancmange in our childhood, in the treatment of the moulded stone—by Sir John Burnet and Partners; and, for their good-humour in simple masses, the new Council Dwellings, Vincent Street, off Marsham Street, by Sir Edwin Lutyens, R.A. These last are treated chess-board fashion, the windows alternating with squares of artificial stone on a ground of beautiful greyish brick. Speaking generally, however, it is less in complete buildings than in such details as shop fronts that modernism is creeping into London most successfully.

COMPETITION AWARDS

STREET DECORATION SCHEMES FOR LIVERPOOL

THE following awards have been made in the competitions for designs for the decoration of Liverpool Streets during the Liverpool and Manchester Railway Centenary Celebrations which are to be held from September 13 to 20.

Castle Street and Derby Crescent Scheme: 1 (£20), Leonard Berger, 3 Spencer Street, Everton, Liverpool; 2 (£10), W. G. Holford and G. Stephenson, of the Liverpool School of Architecture.

Moorfields Scheme: 1 (£20), C. W. Hutton, 7 St. Bees Road, Bolton; 2 (£10), Leonard Berger, 3 Spencer Street, Everton, Liverpool.

Central Station, Church Street, Bold Street, and Hanover Street Scheme: 1 (£20), W. G. Holford and G. Stephenson, of the Liverpool School of Architecture; 2 (£10), Leonard Berger.

Lime Street Scheme: 1 (£20), E. M. K. Ellerton, Rankin Hall, Liverpool; 2 (£10), J. L. Parkinson, 48 Dovedale Road, Mossley Hill, Liverpool.

The assessors were Professor L. Budden (chairman), Mr. H. Tyson Smith, and Mr. H. Hinchcliffe Davies, assisted by Mr. Matthew Anderson, of the Liverpool Organization. All the prize-winners are either students or members of the staff of the Liverpool School of Architecture.

The Castle Street design is intended to convey in a forceful manner something of the spirit of the Railway birthday. The pylons, each throwing out bright-coloured signal arms, are joined by lines of bunting which create a suspension bridge effect.

The main feature of the winning design for the decoration of Moorfields consists of panels on which are painted types of Liverpool people who are served by the railway.

The dominating feature of the Central Station scheme is a pylon which fits over the existing lighting control, and is the focus of the four streets. Incorporated in the design of the pylon is a revolving light with alternate opaque and translucent shutters, to give the effect of a searchlight at night.

The entrance to the Mersey Railway and the Cheshire Lines Railway will be marked by three tall Venetian masts with banners.

Lime Street station site presented the greatest technical and decorative difficulties. The designers were asked to decorate the short street leading up to Lime Street station, and to evolve an erection near the site of the "Punch and Judy" show which would be seen by all travellers emerging from the station. The main motif of the winning design is a triumphal arch which the through traffic to and from Lime Street

station passes. The design consists of two pylons supporting symbolical figures. Between these pylons is a large descriptive modelled panel, showing different aspects of engineering. Each of the pylons will show the Railway Company's coat of arms. The whole structure is finished in aluminium, the bases and caps of the pylons being finished with vermilion, turquoise, green, and black.

Designs for further schemes of decoration in the city and in the neighbourhood of Wavertree Playground will be entrusted to one or more of the aforementioned prize winners, at the discretion of the assessors.

R.S.A. INDUSTRIAL DESIGNS COMPETITION

The awards in the architectural decoration section of the Royal Society of Arts Competition of Industrial Designs, 1930, are announced below. All the designs submitted in the various sections are on exhibition at the Imperial Institute, South Kensington, until August 31.

Prize offered by the Royal Society of Arts under the Mulready Trust for a set of three black-and-white drawings of architectural subjects in any town or district :—

The Prize of £20 to Harold F. Hoar, Bartlett School of Architecture, University College (No. 1786).

Highly Commended :

Dennis E. J. Harrington, London (Nos. 1643 and 1644).

Frederick E. Kerswill, Bartlett School of Architecture, University College (Nos. 360 to 365).

Francis G. Lodge, London (Nos. 624 to 626).

Prize offered by Mr. Murray Adams-Acton, for the best lettering on any sheet of drawings submitted in the whole section of architectural decoration :—

The Prize of £5 to William A. Moffoot, Selly Park, Birmingham. (Nos. 1184 to 1186 in subsection 5).

Prizes or travelling scholarship offered by Messrs. Baguès, Ltd., for a design for a metal screen (in the Norman, Perpendicular or Modern style) for a small church :—

First Prize of £30 to Arthur C. Adamson, Hammersmith School of Arts and Crafts. (Nos. 2153 to 2156).

Second Prize of £20 to Raymond C. Bean, Dalston, E.8. (Nos. 1291 to 1294).

Prizes offered by Messrs. Bratt Colbran and Company and the Heaped Fire Company, Ltd., for a design for a fireplace :—

First Prize of Twenty Guineas to Francis F. Johnson, School of Architecture, Leeds College of Art. (No. 2643).

Commended :

Kenneth M. Angus, Plymouth. (No. 1073).

Norman Holmes, Burnley. (No. 1386).

Donald M. Williamson, Sheffield College of Arts and Crafts. (No. 2864).

Prizes offered by Messrs. Chance Brothers and Company, Ltd., for designs for a glazed screen for a fashionable hotel :—

First Prize of £35 to Harold J. W. Hyde, Newton St. Loe, near Bristol. (No. 136).

Second Prize of £15 to Edwin J. Storry, School of Architecture, Leeds College of Art. (No. 2652).

Commended :

Frederick E. Osborne, Victoria, S.W.1. (Nos. 749 and 750).

Prize offered by Messrs. Hailwood and Ackroyd, Ltd., for a design of an electrical illuminating fitting to occupy the central position in a room, with wall bracket fitting to match, designed in modern style :—

The Prize of Ten Guineas to John A. C. Howard, Bowes Park, N.22. (Nos. 1636 to 1637).

Highly Commended :

Arthur Collett, Ryland Memorial School of Art, West Bromwich. (Nos. 531 to 533).

Prizes offered by the Malkin Tiles (Burslem), Ltd., for a design for a dull glazed surround to suit a wood mantel opening for a dining-room or lounge in a modern room :—

The First Prize of £10 to Thomas B. Jones, Burslem School of Art. (No. 3283).

Highly Commended :

Francis W. Mudd, Architectural Association School of Architecture.

Prizes offered by Messrs. Smith and Wellstood, Ltd., for designs for an anthracite stove :—

The judges were unable to recommend that the full amount of the prizes offered should be given, but the following award was made :

A Prize of £10 to Miss Vera M. Moller, Golders Green, N.W.11. (No. 1531).

Prizes offered by Messrs. J. Wippell and Company, Ltd., for designs for a litany desk in wood :—

The First Prize of Ten Guineas to Ernest J. Weir, Edinburgh. (Nos. 1518 and 1519).

The Second Prize of Five Guineas to Terence Carr, Woking, Surrey. (No. 779).

Highly Commended :

George Hay, Edinburgh College of Art. (Nos. 3348 and 3349).

Commended :

Terence Carr, Woking, Surrey. (No. 778).

Gerald Cogswell, London. (No. 832).

Prizes offered by the Morris-Singer Company for a design for a wrought-iron entrance door for a high-class West End business shop :—

The First Prize of Ten Guineas to William A. Guttridge, School of Architecture, Leeds College of Art. (Nos. 2632 and 2633).

The Second Prize of Six Guineas was equally divided and a prize of three guineas each was awarded to :

Frank A. Gardner, Stoke Newington, N.16. (No. 546); and

Miss Vera M. Moller, Golders Green, N.W.11. (No. 1532).

Commended :

Roland Morris, Sydenham Hill, S.E.26. (Nos. 640 and 641).

Prizes offered by the Morris-Singer Company for a design for leaded glazing for a metal staircase window upon a half landing opposite to the above-mentioned door (subsection 10 [*a*]) of a different design but to harmonize with the door :—

Owing to the lack of suitable entries the Judges were unable to recommend that the full amount of the prizes offered should be given, but the following awards were made :

A Prize of Six Guineas to John R. Sime, Nottingham School of Art. (No. 3121).

Highly Commended :

John R. Sime, Nottingham School of Art. (No. 3118).

The second half of this subsection did not produce such interesting work. The designs generally lacked architectural feeling and showed want of knowledge of the limitations of the materials. The design by J. R. Sime (No. 3121), which was awarded a prize, was over-elaborate, but was suitable for the material and would work out well in practice.

INCORPORATED INSTITUTE OF BRITISH DECORATORS

Following are the names of the winners of the Incorporated Institute of British Decorators' scholarships and awards for 1930, and the successful candidates in the Institute's 1930 entrance examination :

Scholarships and Prizes, 1930 : Books, value £5, Harry John Farr (The Northern Polytechnic); £25 Junior Scholarship, Benjamin Charles Fick (The Northern Polytechnic); the work of Charles Henry Simpson (The Northern Polytechnic) was highly commended. 60 Guineas Travelling Scholarship, Alec Cecil Wilce (The Central School of Arts and Crafts); second place, bronze medal, Roy Fowkes (St. Martin's School of Art); third place (no prize), Gilbert Leslie Monk (Brixton L.C.C. School of Building).

Institute Entrance Examination, 1930 :

Intermediate Grade :

Tingley, H. R.
Roberts, W. S.
Fowkes, C. R.
Moseley, L. J.
Yates, W. R.

Final Grade :

Lewis, E. W.
Evans, J. A.
Drummond, A. S.
Tubb, L. F. J.
Gates, B. H. E.

THE ARCHITECTS' DIARY

WEDNESDAY, AUGUST 13

ROYAL SOCIETY OF ARTS. At the Imperial Institute, Exhibition Road, South Kensington, S.W.7. Exhibition of designs submitted in the R.S.A. Competition of Industrial Designs. Until August 31. 10 a.m. to 5 p.m. (Sundays 2.30 to 6 p.m.). **10 a.m.**

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. **10 a.m.**

THURSDAY, AUGUST 14

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to India House, Aldwych, W.C.2. **5.30 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "English Renaissance Furniture." By L. O. Faraker. **3 p.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Lighting and Illumination." By G. Tilghman Richards. **12 noon.**

SATURDAY, AUGUST 16

Sunrise, 5.46 a.m. Sunset, 8.22 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Indian Section: "Sculpture." By Miss M. Chamot. **3 p.m.**

TUESDAY, AUGUST 19

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Roads and Road Transport." By G. Tilghman Richards. **12 noon.**

WEDNESDAY, AUGUST 20

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Morley College, Westminster Bridge Road, S.E.1. **11.30 a.m.**

THURSDAY, AUGUST 21

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By Miss M. Chamot. **3 p.m.**

FRIDAY, AUGUST 22

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Cornwall House, Stamford Street, Waterloo Road, S.E.1. An official demonstration will be given of the automatic telephones. **3 p.m.**

SATURDAY, AUGUST 23

Sunrise, 5.56 a.m. Sunset, 8.8 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Ironwork." 12 noon. "Ecclesiastical Metalwork." 3 p.m. Both lectures by L. O. Faraker. **12 noon.**

MONDAY, AUGUST 25

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass." By T. F. Wilson, F.R.S.A.I. **3 p.m.**

TUESDAY, AUGUST 26

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Harrington House, Craig's Court, Charing Cross, S.W.1. **3 p.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Electricity." By S. H. Groom, B.A. **3 p.m.**

SATURDAY, AUGUST 30

Sunrise, 6.8 a.m. Sunset, 7.53 p.m.

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS, 26 Buckingham Gate, S.W.1. Fourteen-day Tour to Madrid, returning to London on September 13.

MONDAY, SEPTEMBER 1

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. September 1 to September 6.

TUESDAY, SEPTEMBER 2

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "The Composition, Mixing, Methods of Application of Concrete and Reinforced Concrete, as used in the Yards, and the Control of Same." By T. R. Grigson, M.INST.C.E. "Some Notes on the Composition, Mixing and Application of Concrete in Engineering Works." By C. J. Jackaman, A.M.INST.C.E.

WEDNESDAY, SEPTEMBER 3

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Pieces in Concrete Piles." By M. J. C. McCarthy, A.M.INST.C.E., A.M.MECH.E. "Stresses in Dams." By S. D. Carothers. "A Study of Plain and Reinforced Concrete Retaining Walls." By Ewart S. Andrews, B.SC., M.INST.C.E. "Reinforced Concrete in Great Britain." By A. Kirkwood Dodds, M.C., M.SOC.C.E. (FRANCE). "Reinforced Concrete in Engineering: Representative Examples of British Practice." By M. Gerard, M.SOC.C.E. (FRANCE).

THURSDAY, SEPTEMBER 4

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Work of the Building Research Station on Small Movements in Concrete." By Dr. W. H. Glanville, B.SC., A.M.INST.C.E. "The Effect of Temperature on Flat Arches Constructed of Reinforced Concrete." By C. S. Gray, B.SC., A.M.INST.C.E. "Temperature and Cement." By Dr. Oscar Faber, O.B.E., M.INST.C.E.

SATURDAY, SEPTEMBER 6

Sunrise, 6.19 a.m. Sunset, 7.37 p.m.

XII. INTERNATIONAL CONGRESS OF ARCHITECTS. In Budapest. September 6 to 13. Opening of International Exhibition of Architectural Designs in the Picture Gallery of the Hungarian Scientific Academy. **10 a.m.**

THURSDAY, SEPTEMBER 11

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Furniture." 12 noon. "Italian Decoration." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

FRIDAY, SEPTEMBER 12

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Furniture." By Miss M. Chamot. 12 noon. "Gothic Woodwork." By T. F. Wilson, F.R.S.A.I. 3 p.m. **12 noon.**

SATURDAY, SEPTEMBER 13

Sunrise, 6.30 a.m. Sunset, 7.21 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

WEDNESDAY, SEPTEMBER 17

INTERNATIONAL BUILDING TRADES EXHIBITION, Olympia. Until October 1.

BRITISH GLASS CONVENTION. At Buxton. Until September 20. Morning: Meeting of the Council of the Society of Glass Technology. Afternoon: General Meeting of the Society of Glass Technology. Evening: Informal Presidential Reception of members and their friends at the Palace Hotel.

THURSDAY, SEPTEMBER 18

BRITISH GLASS CONVENTION. At Buxton. Morning: Official welcome by the Mayor and Corporation of Buxton, at the Peak Buildings. Presidential Address. Discussion on "Elimination of Waste in the Glass Industry," to be opened by Dr. Miles. Official luncheon. Evening: Mayoral Reception at the Palace Hotel.

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition in the R.I.B.A. Galleries of Drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.). Until September 30. **10 a.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussions on "Marketing Methods in the Glass Industry" and "Public Propaganda in the Glass Industry," to be opened by Sir Francis Goodenough, C.B.E., and H. Gordon Selfridge, respectively. Afternoon: Golf Competition for championship of the Glass Industry. Evening: Banquet at the Palace Hotel.

SATURDAY, SEPTEMBER 20

Sunrise, 6.41 a.m. Sunset, 7.5 p.m.

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussion on "The Convention—Present and Future," to be opened by Mr. Walter Chance, M.A., J.P.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass (1)." 12 noon. "Stained Glass (2)." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS. London and Home Counties Branch. Dinner and Dance to be held at the Quadrant Restaurant, Regent Street, W. Tickets, 7s. 6d.

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Continental Glass." 12 noon. "English Domestic Glass." 3 p.m. Both lectures by Miss B. Goldsmid. **12 noon.**

TUESDAY, SEPTEMBER 30

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. "The Making of a Cathedral—Liverpool." By E. W. Harvey-Piper. (Lantern Illustration.) **7 p.m.**

THURSDAY, OCTOBER 9

C.P.R.E. Third Annual Conference, to be held at Welwyn Garden City. Until October 11. Among the papers to be read are the following: "The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields." By Sir Lawrence Chubb. "Town and Regional Planning in their Relation to the Objects of the C.P.R.E." By Sir Theodore Chambers, K.B.E., F.S.I. "Education and Citizenship in their Relation to the Safeguarding of the Countryside, etc.," and "Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds." Each paper will be open to discussion.

COMPETITIONS OPEN

August 30.—The Carlisle Corporation invites British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. The site was previously occupied by the Prison. The total length of the frontage is approximately 358 ft. Assessor: Francis Jones, F.R.I.B.A. Premiums: £300, £200, and £100. Particulars of the competition, etc., may be obtained from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

September 1.—The Bangor (Co. Down) Borough Council invites architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor: Professor Patrick Abercrombie, F.R.I.B.A. Premiums: £150 and £50 for first and second places, respectively. Copies of the conditions and plans will be forwarded on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs: September 1.

September 30.—The Isle of Man Education Authority invited architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invite architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor: A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs: October 20.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

The Birkenhead Corporation has decided, in connection with the new central library, to restrict the competition to architects practising within a twenty-mile radius of the town hall.

The Durham County Council has considered the question of new county buildings, and has authorized the clerk to approach the President of the R.I.B.A. with a view to his nominating a north-country architect to act as assessor in connection with the proposed architectural competition for the provision of new county offices on the Old Elvet site.

IN PARLIAMENT

[BY OUR PARLIAMENTARY REPRESENTATIVE]

Town Planning Act, 1925

IN the House of Lords, Lord Gage asked when the Government proposed to introduce legislation to amend the Town Planning Act, 1925.

Lord Parmoor, replying for the Government, said they quite realized the existing statutory requirements were inadequate for present arrangements. It was recognized that there was a general demand for an extension of planning powers, not only of built areas of towns, in order to secure that re-development, as and when it takes place, shall be carried out on a settled plan, but also in rural areas, so that development might be brought under proper control and the amenities of the countryside preserved and respected. Steps had already been taken to obtain the views of members of local authorities and of important organizations interested, and the Government would take the question of legislation on this subject into careful consideration when framing their programme for next session.

Rent Restrictions Act

In the House of Commons, Mr. Greenwood, in reply to Mr. Tout, said that the last general inquiry into the working of the Rent Restrictions Act was made in 1923, and the whole situation had been profoundly modified since that date by such factors as the operation of the Housing Act passed in that year, and by the additions made to the number of houses available. While, therefore, the Government were fully conscious of difficulties and hardships resulting from the existing Acts, they felt that, before coming to any conclusion as to the course to be adopted, it was necessary to have the whole field under the Acts fully examined by a strong Departmental Committee, and they proposed to set up such a committee as soon as possible. Meanwhile, they would propose to Parliament, in due course, to extend the existing Acts for another year by means of the Expiring Laws Continuance Act.

Mr. Snowden stated that it was the intention of the Government to take special steps to stimulate the provision of improved housing in rural areas under the powers which the new Housing Bill gave them. Also, the Committee on the Rent Restrictions Acts would include under its purview the special position of the tied cottage, with a view to providing a remedy against any unfair use of that system.

Calton Jail Site

Mr. Mathers asked the First Commissioner of Works whether it was his intention during the recess to continue his negotiations with the Corporation of Edinburgh and the Scottish Fine Art Commission regarding the design of the buildings to be erected on the Calton Jail site.

Mr. Lansbury said that the answer was in the affirmative.

Removal of Rodin's Statue

Mr. Morley asked the First Commissioner if he would secure the removal of Rodin's statue of the Burghers of Calais to a place where it would be seen to better advantage.

Mr. Lansbury replied that he did not think there was any other site under his control which would be more suitable. Moreover, the present position was selected by the sculptor himself, after considering all possible alternatives and personally inspecting a number of sites.

The Roman Wall

Sir John Withers asked the First Commissioner what was the exact state of negotiations for the preservation of the Roman Wall pending the introduction of legislation.

Mr. Lansbury said that negotiations had been proceeding in accordance with a decision of the Cabinet, with a view to limiting the area within which quarrying was to be allowed, and, from a letter which he had received from the quarry owner, he anticipated a successful issue. No quarrying had yet begun on the site, and there would be no interference at any time with the wall or the vallum. If, as he hoped, the legislation contemplated was carried through without delay, the surroundings of the wall as a whole would be adequately protected for the future.

Housing Progress

Mr. Gossling asked the Minister of Health if he would state the number of houses built under the 1924 Act from July, 1928, to June, 1929; and the number built from July, 1929, to June, 1930.

Mr. Greenwood said that the numbers for England and Wales were during the period July 1, 1928, to June 30, 1929, 51,282; and during the period July 1, 1929, to June 30, 1930, 54,159.

Sir Kingsley Wood asked the Minister of Health if he would give the number of houses finished under the various Housing Acts for the quarter ended June, 1930.

Mr. Greenwood said that the number completed in England and Wales during the quarter in question was 11,351. All these houses were erected under the Housing (Financial Provisions) Act, 1924.

Average Cost of Houses

Sir Kingsley Wood then asked the average price for parlour and non-parlour houses, respectively, let by or in direct labour schemes of local authorities in England and Wales during June, 1930.

Mr. Greenwood replied that the average prices were, for parlour houses £403, and for non-parlour houses £339.

LAW REPORT

QUESTION OF ANCIENT LIGHTS

Edelshain v. *Huggins and Co., Ltd. Chancery Division. Before Mr. Justice Clauson*

THIS was an action by Mr. Leon Edelshain, of the Regent Palace Hotel, and Regent Street, goldsmith and silversmith, against Messrs. Huggins & Co., Ltd., of Palace Street, S.W., for a declaration that three contracts to purchase for £133,000 Huggins' Lion Brewery Estate, Soho, were rescinded or might be rescinded by the plaintiff. He also asked for repayment of deposits held by the auctioneers, Messrs. Farebrother, Ellis & Co., as stakeholders, amounting to £13,200.

The plaintiff's case was that it was not till after the contract that an old agreement was found not to build on one side of Lot 1 beyond a certain height, because of ancient lights, and as to Lot 3 the particulars said they were short tenancies, leading to the conclusion that the tenants could easily be got rid of, whereas the Rent Restrictions Act applied. The particulars of sale declared the whole was capable of remunerative development, that the tenancies were all short tenancies and that the property was exceedingly valuable. The total area was 30,000 square feet, with 1,000 feet frontages. He bought at the sale in May last year Lot 1, freehold and leasehold premises, formerly Huggins' Lion Brew House, in Broad Street, for £55,000; Lot 2, freehold premises used as brewery cooperage, Broad Street, for £41,000; and Lot 3, freehold brewery offices with shops having rooms above, in Broad Street, Berwick Street, Kemps Court, for £37,000. Plaintiff purchased the whole to develop into a complete scheme of flats and instructed his architects to get out plans. He suggested that his purchase of the three lots stood or fell together, and it was essential that he should have early possession.

Mr. Swords, K.C., for plaintiff, said

the question was whether the defendants had made a title according to contract when they had not disclosed the existence of a contract affecting title, viz., an agreement to observe a neighbour's lights by not building above a certain height.

Mr. Topham, K.C., said none of the directors knew of this agreement, which was thirty years old. It was provided that the case of an error might be met by compensation, and plaintiff had not asked for it.

Mr. Swords said plaintiff had not been offered it, and further, a restrictive covenant was incapable of compensation.

Mr. E. J. Tanner, F.R.I.B.A., of Messrs. Henry Tanner, Hanover Square, said he did not notice the white tiles on the property, which might indicate that a question of ancient lights had at some time been raised. He was preparing plans for the plaintiff for flats from May 23.

Plaintiff gave evidence and said he bought to obtain 9 per cent. on his capital and had confidence his flats would have gone like hot cakes. He refused £3,000 profit on Lot 3. The auctioneers who hold asked if he would accept £150,000, and he replied that he would, provided he had not completed. A friend was going to advance £100,000 on the property.

Mr. Wild, of Messrs. Farebrother, Ellis & Co., gave evidence for the defence as to being notified that the property was again in the market, and as to an agreement that on payment of £1,500 and costs buildings could go up without restrictions as to height.

His lordship, in giving judgment, said he could not hold that the statement with regard to the tenancies was misleading. The Rent Restrictions Act was law and it could not be suggested that there was any obligation upon a vendor to draw the attention of the purchaser to any particular law. Besides, under the contract the purchaser agreed that he should be deemed to know what the tenancy terms were. The omission to disclose the ancient lights agreement was an innocent one, but the agreement should have been disclosed. There was a sub-clause in the contract which stated that no omission or mis-statement, although materially affecting the description of the property, should annul the sale, but if pointed out before the completion compensation would be made to the purchaser. The omission came within that sub-clause and the purchaser was not entitled to be discharged from the contract, but the plaintiff said he would be discharged on the ground that it was impossible to assess compensation, and he relied upon another sub-clause which said that nothing in the conditions should enable the vendor to convey property which differed substantially from the property agreed to be sold. His lordship was of opinion that it was quite possible for an arbitration tribunal to assess the compensation, and that having regard to the size of the property it could not be regarded as differing substantially from the property without restrictions. He therefore dismissed the action with costs.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

21269. Thompson, J. W. Concrete slab structures. July 14.

21318. Bound, W. S. Concrete building construction. July 14.

21880. Cocking, W. C. Concrete structures. July 19.

22059. Mathews, C. B. Production of fireproof floors. July 22.

22235. Remis Industries, Inc. Building-block. July 23.

22510. Oliver, H. W. Building materials. July 25.

SPECIFICATIONS PUBLISHED

312308. Remis Industries Inc. Building construction.

332331. Burgess, A. F. (Tench, F.). Flooring, walls, partitions and other parts of structures.

ABSTRACT PUBLISHED

330186. Gratings; reinforced concrete. Law, J. A., 29 Southampton Buildings, London. (Irving Iron Works Co., 3rd Street, Long Island, New York, U.S.A.).

NEWS ITEMS

UNIVERSITY AND TRAVELLING SCHOLARSHIPS

New conditions for the award of university and travelling scholarships have been announced by the Council of the Surveyors' Institution. It is proposed, in future, to offer one three-year scholarship annually, value £100 per annum, and three one-year scholarships of £125 each, which will in all cases be tenable at Cambridge University, except where the successful applicant for a one-year scholarship has applied to use his emoluments for travel.

The system of awarding scholarships on the result of a competitive examination has, they state, been found unsatisfactory and will be discontinued. Awards in future will be made by selection, the applicant's school record, personality, and intentions regarding his future career as a surveyor being taken into account.

Particulars of the conditions governing these scholarships may be obtained from the Secretary of the Institution, 12 Great George Street, Westminster.

CHARING CROSS BRIDGE

Definite and practical proposals bearing upon the terms of reference to the Advisory Committee appointed by the London County Council, in connection with the Charing Cross Bridge Scheme, will be considered by the Committee.

Such proposals should be accompanied by sufficient explanations and plans, and should be addressed to Montagu H. Cox, Clerk of the Council, County Hall, Westminster Bridge, S.E.1, to be there received, if possible, by August 30, but in any event not later than September 10, 1930.

The terms of reference to the Advisory Committee are: That an Advisory Committee be appointed by the Council for the purpose of preparing and submitting to the Council an agreed scheme for a road bridge and approaches at Charing Cross, within a net cost of £12,500,000.

A STONE HOUSE IN SHROPSHIRE

Following are the names of the general contractors and some of the sub-contractors for the house, garage, lodges, etc., at Hammer Hill, near Bewdley, illustrated on pages 229–231 of this issue:

General contractors, Messrs. Thomas Vale and Sons, Ltd., who were also responsible for the excavation, foundations, damp courses, concrete blocks, reinforced concrete, artificial stone, fireproof construction, ventilation, plumbing, joinery and water supply. Sub-contractors: Rubery Owen & Co., structural steel; Ames and Finnis, slates and roofing felt; C. Trumper and Sons, breeze partitions; Henry Hope, Ltd., patent glazing, door furniture and casements; Griffin Foundry Co., grates, boilers and mantels; Shanks & Co., Ltd., sanitary fittings; Marley Bros., fireproof doors and metal work; A. and P. Steven, Ltd., lifts.

ANNOUNCEMENTS

Messrs. Fred Rowntree and Sons, architects, have removed their offices to No. 94 Baker Street, W.1. Telephone number: Welbeck 6385.

Mr. Norman Keep, A.R.I.B.A., has been appointed head of the building department at Woolwich Polytechnic (Evening) and would be pleased to receive manufacturers' catalogues, etc., relating to modern building materials and specialist methods of construction.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0*
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_1	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 8½	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* NAVVY, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 10 0
Pit gravel, per yd.	0 15 0
Pit sand, per yd.	0 12 6
Washed sand, per yd.	0 13 0

Screened ballast or gravel, add 10 *per cent. per yd.*
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2 8 0
Lias lime, per ton	2 0 0

Sacks charged extra at 1*s.* 9*d. each and credited when returned at* 1*s.* 6*d.*

Transport hire per day:

Cart and horse	£1 3 0	*Trailer*	£0 15 0
3-ton motor lorry	3 15 0	*Steam roller*	4 5 0
Steam lorry, 5-ton	4 0 0	*Water cart*	1 5 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0 1 6
SPREAD and level, including wheeling, per yd.	0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0 10 6
TRIMMING earth to slopes, per yd. sup.	0 0 6
HACKING up old grano. or similar paving, per yd. sup.	0 1 3
PLANKING to excavations, per ft. sup.	0 0 5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.	
IF left in, add to above prices, per ft. cube	0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0 2 1
DO. 6 in. thick, per yd. sup.	0 2 10
PUDDLING, per yd. cube	1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube	1 17 6
DO. 6-2-1, per yd. cube	1 12 6
DO. in upper floors, add 15 per cent.	
DO. in reinforced-concrete work, add 20 per cent.	
DO. in underpinning, add 60 per cent.	
LIAS-LIME CONCRETE, per yd. cube	£1 14 0
BREEZE CONCRETE, per yd. cube	1 7 0
DO. in lintels, etc., per ft. cube	0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0 3 9
FINE concrete benching to bottom of manholes, per ft. cube	0 3 0
FINISHING surface of concrete spade face, per yd. sup.	0 0 9

DRAINER

LABOURER, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* BRICKLAYER, 1*s.* 8½*d. per hour;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0 0 10
DO. *6 in., per ft.*	0 1 3
DO. *9 in., per ft.*	0 2 3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 5 6
DO. *6 in., per yd.*	0 8 0
Portland cement and sand, see "Excavator" above.	
Leadwool, per cwt.	£2 0 0
Gaskin, per lb.	0 0 4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4 5 6
Flettons, per M.	2 12 6
White facing bricks, per M.	5 0 0
Multi-coloured facings, per M.	7 7 9
Best red facings, per M.	7 7 9
Rubbers, 9¾ in., per M.	12 0 6
Staffordshire blue, per M.	9 5 0
Firebricks, 2½ in., per M.	9 5 0
Glazed salt, white, and ivory stretchers, per M.	21 10 0
DO. *headers, per M.*	20 10 0
Colours, extra, per M.	5 10 0
Seconds, less, per M.	1 0 0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	£2 11 6
Mixed lime mortar, per yd.	1 6 0
Dampcourse, in rolls of 4½ in., per roll	0 2 6
DO. *9 in., per roll*	0 4 9
DO. *14 in., per roll*	0 7 6
DO. *18 in., per roll*	0 9 6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30 0 0
DO. in cement do., per rod	32 10 0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0 1 0
BEDDING plates in cement mortar, per ft. run	0 0 3
BEDDING window or door frames, per ft. run	0 0 3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0 0 2
CUTTING do. in old walls in cement, per ft. run	0 0 4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0 0 7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0 3 6
DO. 14 ft. by 9 in. do., per ft. run	0 6 0
FLAUNCHING chimney pots, each	0 2 0
CUTTING and pinning ends of timbers, etc., in cement	0 1 0
FACINGS fair, per ft. sup. extra	0 0 3
DO. picked stocks, per ft. sup. extra	0 0 7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0 4 9
DO. in salt white or ivory glazed, per ft. sup. extra	0 5 6
TUCK pointing, per ft. sup. extra	0 0 10
WEATHER pointing, do. do.	0 0 3
TILE creasing with cement fillet each side, per ft. run	0 0 6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0 5 0
DO. 1½ in., per yd. sup.	0 6 0
DO. 2 in., per yd. sup.	0 7 0
If coloured with red oxide, per yd. sup.	0 1 0
If finished with carborundum, per yd. sup.	0 0 6
If in small quantities, in finishing to steps, etc., per ft. sup.	0 1 4
Jointing new grano. paving to old, per ft. run	0 0 4
Extra for dishing grano. or cement paving around gullies, each	0 1 6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0 0 7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0 8 0
DO. vertical, per yd. sup.	0 11 0
SLATE DAMP COURSE, per ft. sup.	0 0 10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0 8 6
DO. SKIRTING, 6 in.	0 0 11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0 5 3
DO. DO. 3 in.	0 6 6
BREEZE fixing bricks, extra for each	0 0 3

MASON

MASON, 1*s.* 8½*d. per hour;* DO. *fixer,* 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone:	
Whitbed, per ft. cube	£0 4 6
Basebed, per ft. cube	0 4 9
Bath stone, per ft. cube	0 3 0
Usual trade extras for large blocks.	
York paving, av. 2½ in., per yd. super	0 11 0
York templates sawn, per ft. cube	0 7 6
Slate shelves, rubbed, 1 in., per ft. sup.	0 2 6
Cement and sand, see "Excavator," etc., above.	

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0 2 8
DO. circular, per ft. sup.	0 4 0
SUNK FACE, per ft. sup.	0 3 9
DO. circular, per ft. sup.	0 4 10
JOINTS, arch, per ft. sup.	0 2 6
DO. sunk, per ft. sup.	0 2 7
DO. DO. circular, per ft. sup.	0 4 6
CIRCULAR-CIRCULAR work, per ft. sup.	1 2 0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0 1 1
DO. circular, do., per ft. run	0 1 4
HALF SAWING, per ft. sup.	0 1 0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup. £0 0 6

RUBBED round nosing to do., per ft. lin. £0 0 6
YORK STEPS, rubbed T. & R., ft. cub. fixed 1 7 6
YORK SILLS, W. & T., ft. cub. fixed . 1 10 0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup. 0 1 3
DO. 2½ in. thick, per ft. sup. . . 0 1 6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour;* TILER, 1*s.* 8½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies		£14 0 0
Countess		23 0 0
Duchess		32 10 0
Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3
Green Randoms, per ton		8 3 9
Grey-green do., per ton		7 3 9
Green peggies, 12 in. to 8 in. long, per ton		5 13 9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0 0 6
Clips, copper, per lb.	0 2 0
Nails, compo, per cwt.	1 6 0
Nails, copper, per lb.	0 2 2
Cement and sand, see "Excavator," etc., above.	
Hand-made tiles, per M.	£5 18 0
Machine-made tiles, per M.	5 8 0
Westmorland slates, large, per ton	9 0 0
DO. *Peggies, per ton*	7 5 0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4 0 0
Countess, per square	4 5 0
Duchess, per square	4 10 0
WESTMORLAND, in diminishing courses, per square	6 5 0
CORNISH DO., per square	6 3 0
Add, if vertical, per square approx.	0 13 0
Add, if with copper nails, per square approx.	0 2 6
Double course at eaves, per ft. approx.	0 1 0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms		6 7 0
Grey-green do.		5 9 0
Green peggies, 12 in. to 8 in. long		4 13 6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6
DO., machine-made do., per square . 3 7 6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0 0 10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0 10 0
LABOUR only in laying slates, but including nails, per square	1 0 0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour;* JOINER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22 0 0
11 × 4, per std.	30 0 0

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq.	£1 4 6
DO., *T. and G., 1 in., per sq.*	1 4 6
Planed boards, 1 in. × 11 in., per std.	30 0 0
Wainscot oak, per ft. sup. of 1 in.	0 1 6
Mahogany, Honduras, per ft. sup. of 1 in.	0 1 4
DO., *Cuba, per ft. sup. of 1 in.*	0 2 6
DO., *African, per ft. sup.*	0 1 3
Teak, per ft. sup. of 1 in.	0 1 2
DO., *ft. cube*	0 14 0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube . . 0 4 6
DO. framed in floors, roofs, etc., per ft. cube 0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube . . . 0 8 6
PITCH PINE, add 33½ per cent.

FIXING only boarding in floors, roofs, etc., per sq.	0 13 6
SARKING FELT laid, 1-ply, per yd.	0 1 6
DO., 3-ply, per yd.	0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq.	2 0 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0 0 4½
DO. 9 in. wide and over, per ft. sup.	0 1 2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 1 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8¼*d. per hour;* MATE, *do.,* 1*s.* 3½*d. per hour;* ERECTOR, 1*s.* 8¼*d. per hour;* FITTER, 1*s.* 8¼*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour;* MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. 4 *in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. 3 *in., per yd.*	0	1	8
DO. 4 *in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. 4 *in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ⅝ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ⅝ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	2	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 *oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. 4 *ft. sup.* ,,	0	2	3
DO. 6 *ft. sup.* ,,	0	2	6
DO. 20 *ft. sup.* ,,	0	3	1
DO. 45 *ft. sup.* ,,	0	3	3
DO. 65 *ft. sup.* ,,	0	3	5
DO. 100 *ft. sup.* ,,	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. ¼ *in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* FRENCH POLISHER, 1*s.* 8½*d. per hour;* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

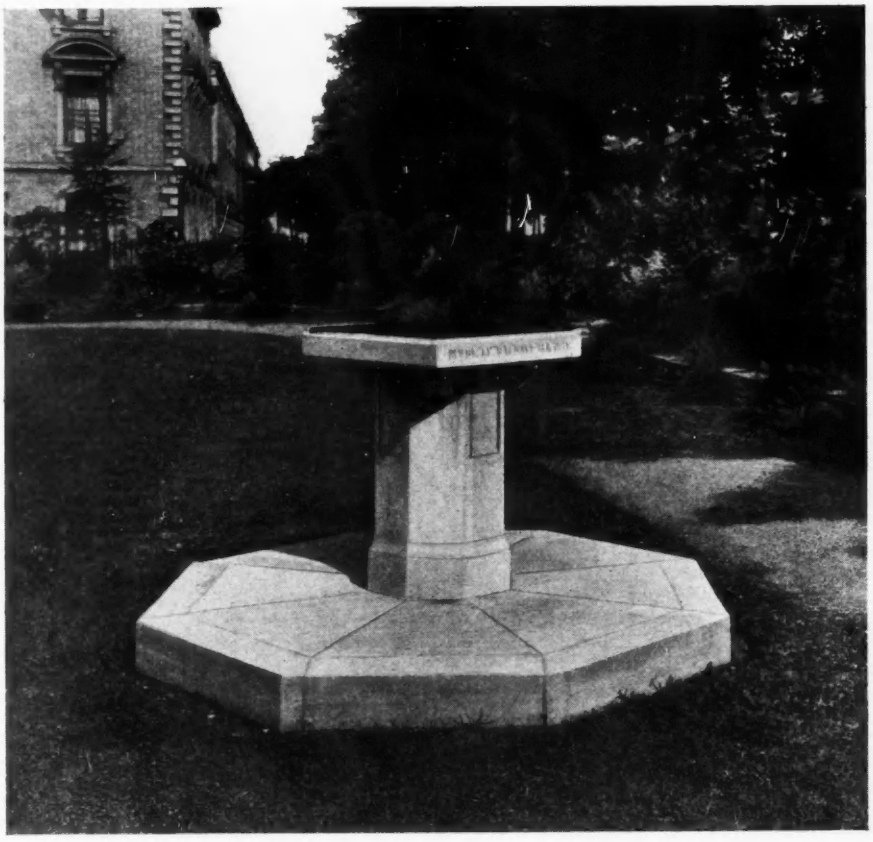
SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. from 3d. to	0	0	6
Plaster-board, per yd. sup. from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon												
Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak												
1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak												
1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



ASTRONOMICAL PLATE
IN THE GROUNDS OF THE MUSEUM, LEICESTER

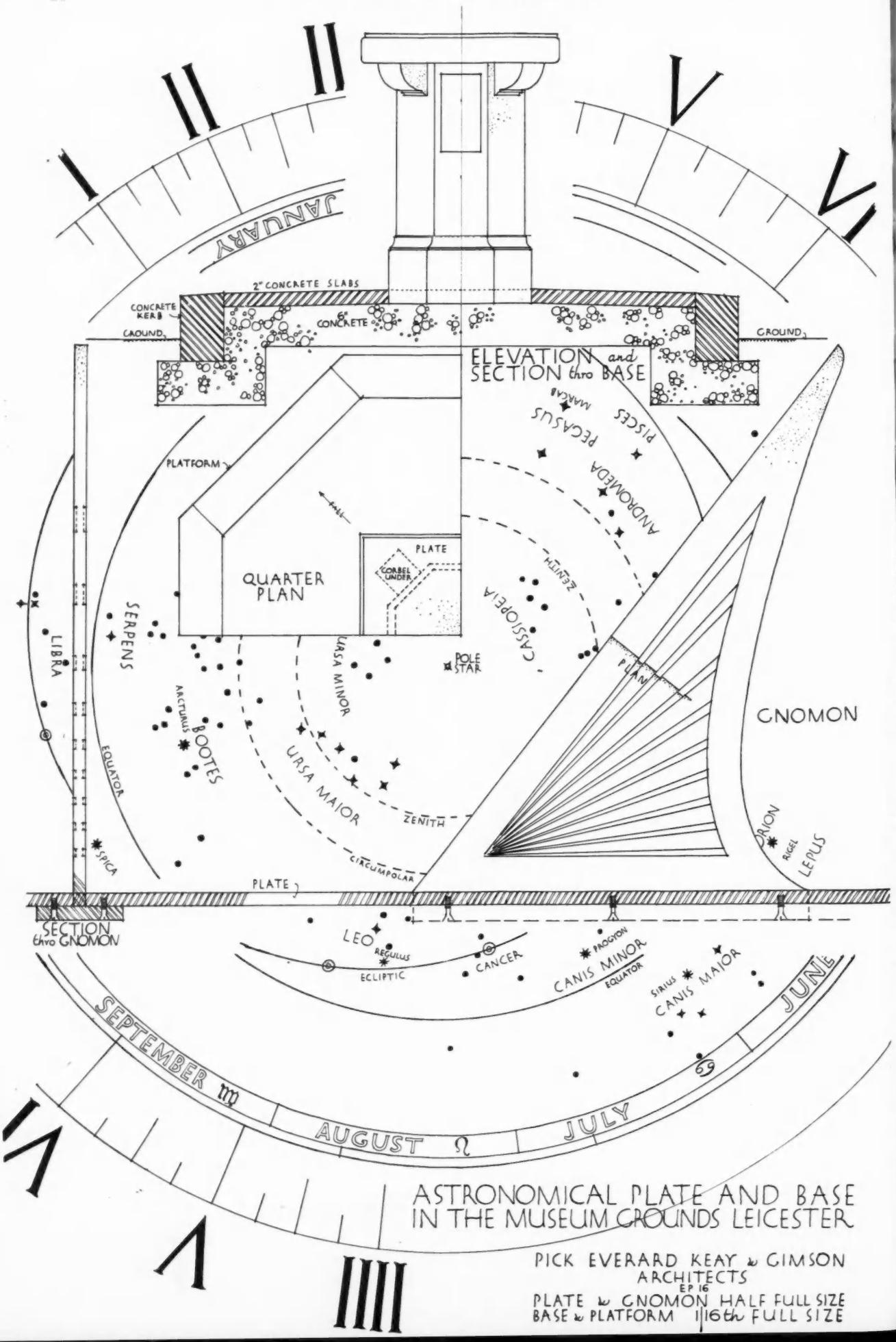
DESIGNED BY PICK, EVERARD, KEAY AND GIMSON

THIS astronomical plate or "sun-dial," fitted to a square base-plate and standing on an octagonal pedestal and paved surround, has been erected in the Museum grounds at Leicester as a memorial to the late F. B. Lott, M.A.

The design of the bronze plate itself, which is set to accord most accurately with the latitude of its position, is the work of a Fellow of the Royal Astronomical Society—Mr. J. W. Durrad. It gives a plotting of the stars and planets, and contains an inset showing the slight variations from Greenwich Mean Time. A detail of part of this plate is given on the scale drawing overleaf.

The pedestal and base, however, for which parts of the memorial concrete was chosen, on account of its permanence, were designed by the architects. The drawings give details both of this concrete work and of the gnomon, or pointer, the shadow of which, moving around the divisions of the plate, marks the passing of the hours, and at the same time shows the position of the sun relative to the heavenly constellations.

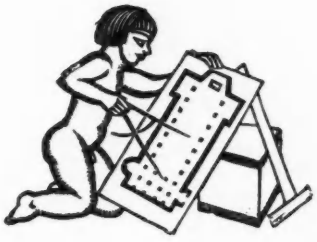
The drawing may be read with $\frac{1}{2}$ and $\frac{1}{16}$ full-size scales.



ASTRONOMICAL PLATE AND BASE IN THE MUSEUM GROUNDS LEICESTER

PICK EVERARD KEAY & GIMSON
ARCHITECTS
EP 16

PLATE & GNOMON HALF FULL SIZE
BASE & PLATFORM 1/16th FULL SIZE



WEDNESDAY, AUGUST 20, 1930

SHEFFIELD RECANTS

When a man came to take on the ordinary work of a city architect, was it necessary for him to take on every job the City Council passed?

MR. J. G. GRAVES.

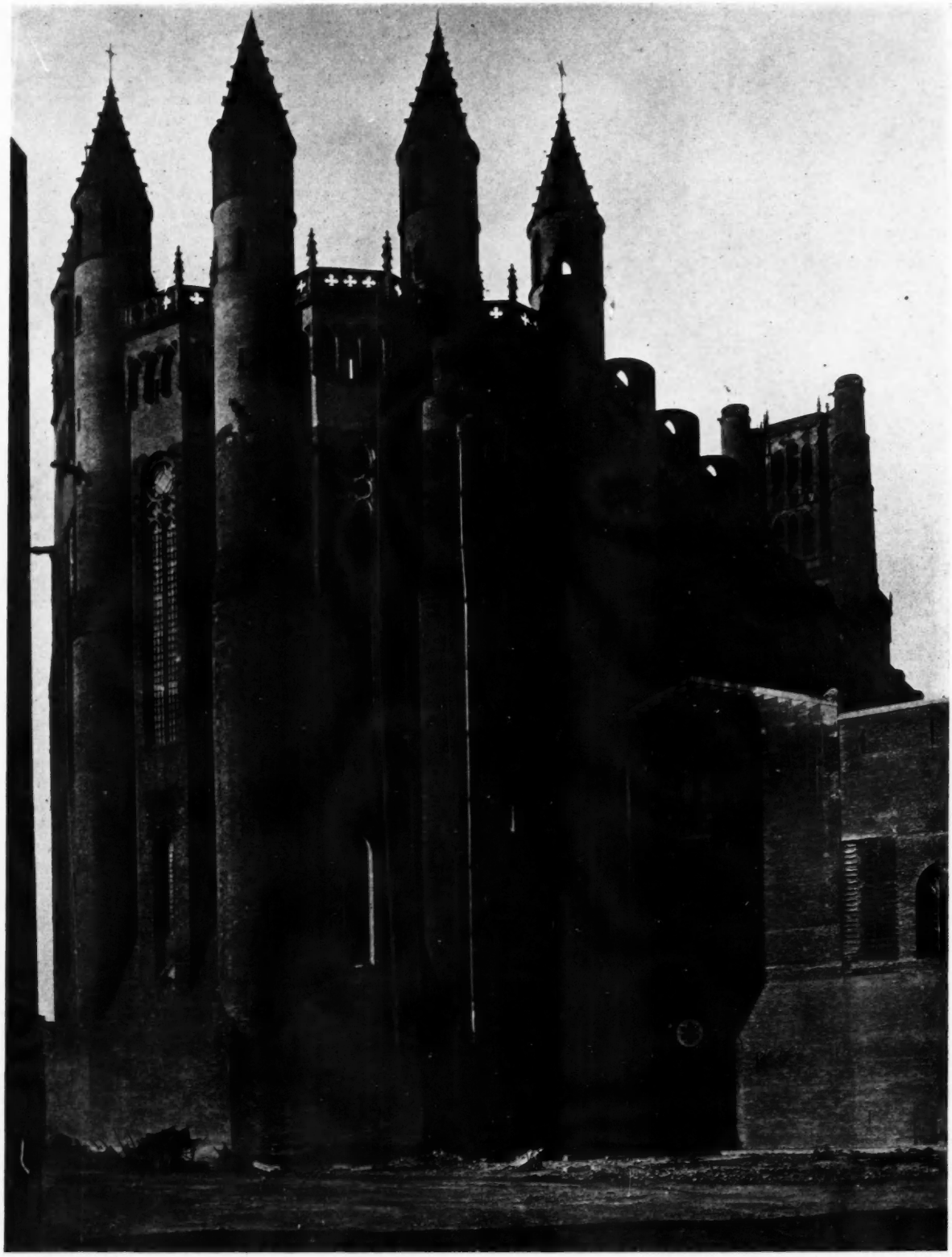
OUR contributor Astragal has more than once referred to the question of official architecture, and it is not many months since the affairs of the city of Sheffield were the subject of one of his paragraphs. Indeed, Sheffield provides a very instructive example of many of the more controversial aspects of the official system, and things are occurring there from time to time that bring this system to the attention of the public at large. Another such incident took place there the week before last, when a motion to grant an honorarium of £1,000 to the City Architect, Mr. W. G. Davies, gave rise to considerable liveliness at a City Council meeting.

The discussion that took place ran upon lines which make it almost as interesting to architects as the motion itself. Those against the motion pointed out that the City Architect was already drawing an adequate salary, and that he should be expected to produce the plans and specifications for a new Central Library and Art Gallery as a part of his ordinary work and without the payment of a special fee. One of the best speeches of the day was that made by Councillor Neal, who reminded the meeting that when extensions to the Town Hall were required the City Architect of the day prepared the plans and no special fee was paid to him. Mr. Neal also drew a parallel between the City Architect's job and that of the City Treasurer, who had done a great amount of work that lay beyond the scope of his ordinary duties, again without any special fee.

Though our sympathies are strongly with Mr. Neal and with others who have argued ably against the principle of the honorarium, we cannot but rejoice that their view of the position should have been contradicted by a majority of the City Council. It may seem at first glance to be most undesirable—some might call it outrageous—that the Council should make its permanent officials a present of large exceptional jobs for which they receive considerable fees over and above their regular salary. There is, we hold, one argument which architects may well advance—as several have done—against such an honorarium being paid, once the work is finished. The payment of an honorarium undoubtedly gives colour to the fallacy that architectural services rendered by an official department cost the community less than the same services rendered by a private firm.

This fallacy is an unconscionable time a-dying, it is true; and few things in this life are more surprising than the readiness with which councillors and other public representatives will swallow costing figures that would render a self-respecting accountant helpless with laughter. It is also true that no less a person than the Chairman of the Sheffield City Council Finance Committee, who really ought to have known better, is reported to have told the meeting that the City Architect had saved Sheffield the full five per cent. that is the ordinary architect's munificent wage. Incredible, but true, if the newspapers are correct. Statements such as these do, we say, surely more than suffice to explain the vigorous opposition to the honorarium, and to some extent justify it.

All this notwithstanding, we believe the granting of this honorarium to Mr. W. G. Davies is a step in the right direction, for it is a vindication of the one principle to which we have always clung in this matter of official architecture. We have no grudge against the official architect, who has in many places proved himself a useful member of the community. We do object, however (as we believe it to be the duty of citizens and architects alike to object) to official architects being entrusted with large exceptional jobs unrelated to their normal everyday work. Until this meeting of the Sheffield City Council took place, it might, for all we knew, have been a part of the Sheffield City Architect's contract with the Council that he should design new public buildings costing £100,000 and over. We know now that it was not. By voting him an honorarium, the City Council has made clear to all its realization that it has done something it ought never to have done : namely, thrust upon one of its most able officials a job he was not appointed to undertake (and one which should, beyond question, have been the subject of open competition). We may not have got very far, but that is where we are today; and we may be pretty certain that the matter will not end there.



THE APSE OF THE CATHEDRAL OF SAINTE CECILE, ALBI, SOUTH-WEST FRANCE

The fortress-cathedral towering above the town of Albi, in South-West France, was two-and-a-half centuries in building, from 1277 onwards. Left incomplete by the original builders, César Daly raised the walls some twenty feet, and added a Gothic cresting and turrets, which were subsequently removed, to be replaced by those here shown. The building is one of those that somehow impress themselves vaguely on the minds of countless people who have never seen them. From his recently published diary for the year 1929 we learn that Mr. Arnold Bennett, who visited Albi last year, "had an intuition that the cathedral would be marvellous." Now that he has seen it, "its red brick," he writes, "is eternally fixed in my mind."

NEWS & TOPICS

CAPITAL SITE VALUES

IT was pointed out in a recent letter to *The Times* that the possible effect that a tax on the capital site value of land may have on the safeguarding of rural amenities must not be forgotten. If taxes are to be levied upon the capital site values of land, it should be possible to work out a system of exemptions that will help to restore a healthy balance between building land and land that is set aside for public enjoyment or private amenity.

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The following exemptions, based upon a survey on town-planning lines, are put forward as suggestions: 1: Any land forming part of a park, pleasure ground, or the amenity of any house. 2: Any land reserved as a public or private open space, or dedicated not to be built upon. 3: Any land zoned for an average of two buildings over a land unit.

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It will be seen that if a tax is levied on the value of all land irrespective of its purpose, it will become very difficult to keep public open spaces; and golf courses, sports grounds, etc., will be forced into the market, and their borders disposed of to pay for the tax by the realization of their potential values.

THE OLD "ADAM" AGAIN

Not long ago thieves lifted two Adam fireplaces from a house in Portland Square. They were valued at £1,000; so it was worth doing. Last week's enterprise went one better, and four fireplaces, in a house bought expressly on account of its fireplaces, were gently carried out and placed upon a motor van, in company with a good show of builders' ladders and other tackle.

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The value placed upon what is called "period" architecture is out of all proportion to the uses to which the architecture is put. Wrenched from its well-balanced setting, a fine piece of Adam design is set up in a room purporting to be an exact reproduction of the period, but failing to be so through the inability of a "period" designer to sense the feeling of fine spatial and linear proportion out of which the fireplace was born. I have seen these interiors in hotels and hated them, remembering with sick loathing how the delicate relief of Adam's invention was made to crawl along the errant beams of an un-Adam steel framework, or to fill in the spaces between windows designed from the outside and not for the room itself. But the whole craze for period rooms springs from a desire to give a lazy and uneducated public what equally uneducated but unfortunately energetic business men think they want.

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It would be harmless if it were not that these energetic maniacs have money to pursue their vandalistic tastes to the full. At this moment an American architect is engaged in the melancholy task of securing 200 English mantelpieces for re-erection in the period rooms of a New York hotel. It is ridiculous, and a slur upon the native cunning of American architects, to suppose that this stuff can ever live again in a hotel suite. These things are beyond price in English houses, and it is just because we would never willingly copy, that the examples of fine periods can give us greater pleasure than they do the hotel merchants who buy them.

THE GENIUS BY THE WAVES

All round the south and east coasts the jerry and speculating builder has literally lost a lot of ground during the last ten years. He was the worst baby on the shore, and he has been left. A nicer baby altogether, with a butterfly tie and plus-fours, and called the seaside architect, has forestalled Jerry on the best pitches, and knows what he can sell, and what will attract a good let for the season. Here is a thatched cottage "with an old-world air," and yonder the adapted type of the Sussex farmhouse, with brilliant hanging tiles. Bits of half-timber break lances with the woodlands, and waves of elm boarding beat the breakers. But through it all, our friend threads some long lines of eaves and ridges, and places some good solid masses of walls and roofs. The whole effect is that of richly English humorous songs punctuated by a jazz band.

DESECRATION ON A LARGE SCALE

Cissbury Ring is one of the most beautiful places in Sussex. Some time ago it was threatened, and saved by the energy of wise people, so that the Ring itself is now preserved for posterity. But on the lower slopes that now enjoy the immunity secured for it through the National Trust, a syndicate is commencing the laying-out of a large building development. The first act of the syndicate that has chosen this beautiful scene for its speculation is to cut in giant letters through the turf a colossal advertisement of its enterprise. In glaring white chalk this defacement stands out upon the pleasant hillside, to be seen for miles around.

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To such purpose has it been that the same good people of Worthing who saved the Ring have risen in their wrath and vowed that they will stint no effort to save the Downs as well; for what is a hill-top saved, when all around it is ruined? Unfortunately, the boundaries of Worthing are not wide enough to take in the site, and it would take too long to obtain powers of extension. But there are other weapons which the Council may use, and these, with unanimous consent, are their weapons against such vandalism. And so the speculators have been denied all help in the matter of drainage, and, of even greater importance, they will be without a public water supply.

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Furthermore, an attempt is to be made to invoke the Advertisement Act in the matter of the giant lettering. It seems to me that a body of public opinion, backed by the Council, could use the Act with great effect; nor can I believe that this same opinion, reinforced by every official body that can lend a hand and voice, will be unable to prevent a group of private speculators from acting contrary to strongly-expressed public feeling and against the best interests of the community.

ARTIFICIAL STONE IN FRANCE

The extensive use of artificial stone in France is very marked at the present time. Nearly all the latest buildings in Paris and other large cities are being constructed of brick and artificial stone, which is made in factories. Even at the Cité Universitaire, which is regarded by the French as being the climax of their post-war effort in the establishment of a University centre, most of the buildings contain a great deal of manufactured stone. Curiously enough, although there are now French, American, Belgian, Canadian, Japanese and Anammite Houses, from the architectural point of view it is considered that the new Armenian House is much the most attractive. Indeed, the the design of some of the other houses has been much criticized.

BADLY-MINTED STUFF

I felt it my duty to wound the feelings of an innocent man who recently showed me, with every expression of pride, some gas-fire surrounds in a material which he called by a name that sounded like marble but wasn't. The material also purported to be marble but was no more marble than Gorgonzola cheese, despite its curious veining, is marble. I asked him why he should go to such trouble to imitate a good material in a bad one, and he answered me by telling me that a great quantity was sold to many satisfied customers, and that I was out of step; all of which made me very sad, for it was yet another corroboration of the depressing fact that to most people matters of taste are matters of fashion.

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For let the majority admire the beauty of stone, yet do not count upon them knowing fake from true for all that. And, inquiring further, you may ask whether indeed they *do* admire the beauties in stone, or are they drawing upon some fictitious, sentimental, and utterly meretricious fund of ancientry worship. And I will not tell you further where this inquiry may lead you, for you will despair of the world, and be wrong in despairing. Better, I feel, to pursue one's own knowledge that one may deal in true coin, than play about with badly-minted stuff. There is enough popular appeal in the air today.

A REAL "SILENT HOUSE" AT OLYMPIA

Apropos my note, last week, on the noise nuisance, in the Building Trades Exhibition next month there will be erected a suite of rooms in the gallery, which will be entitled the "Silent House." While the problem of the acoustics of large auditoriums has received a good deal of attention in recent years, and there must now be few architects who would design a concert hall, for instance, without consulting an acoustical expert, it is far less common to employ the resources of modern science to render sound-proof the walls of ordinary dwellings. With the object of showing the progress which has been made in this direction, a number of firms have been invited to collaborate in the construction of this remarkable suite.

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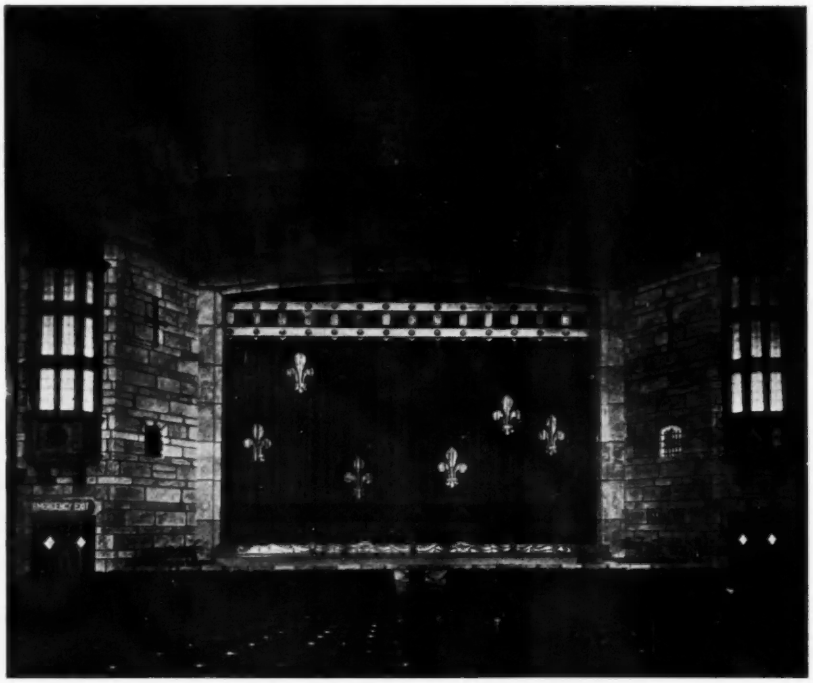
Each room will have on either side of it a small compartment devoted to the exhibition of sound-tests which may be applied to the partition walls and ceiling, and visitors will be enabled to judge of the sound-resisting qualities of specially-constructed walls of insulating bricks and blocks, thatchboard, fibre board, millboard, plywood and other materials. Moreover, they will be shown examples of silent ventilating fans, silent door-shutting apparatus, sound-resisting windows; and many of the appurtenances of the rooms will contribute to the general atmosphere of restfulness which is here aimed at. The designer of the Silent House is Mr. Trystan Edwards, who will also be responsible for the decorations and furnishing.

CAN THERE BE HUMOUR IN ARCHITECTURE?

On several occasions lately I have taken the liberty of enlivening these notes with illustrations of buildings that have struck me as containing some element of humour (species: unconscious). I have never thought about this matter of architectural humour very deeply, but I suppose a building is about the only work of art in which there is no scope for the comedic spirit at all—no scope, that is, for it to function *intentionally*.

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Of the other sort of comedy there is, however, more than enough. Or am I wrong in seeing matter for laughter in an interior such as the one shown on this page? I know from the correspondence I have received that readers of the JOURNAL have not quite seen eye to eye with me in my past guffaws. Well, the flat-arched opening is *not* a billiard-room fireplace, and the objects flanking it are *not* the latest thing in mediæval light-fittings. Nor does the building hail from Hollywood or anywhere in the United States. It is, in fact, a new cinema "not a hundred miles" from the Isle of Man. ASTRAGAL



The mediæval mystery picture referred to in a note on this page. The portcullis is not a real portcullis, but a pelmet. The seats in the foreground, however, are real cinema seats!

THE CAPITOL, WINCHMORE HILL

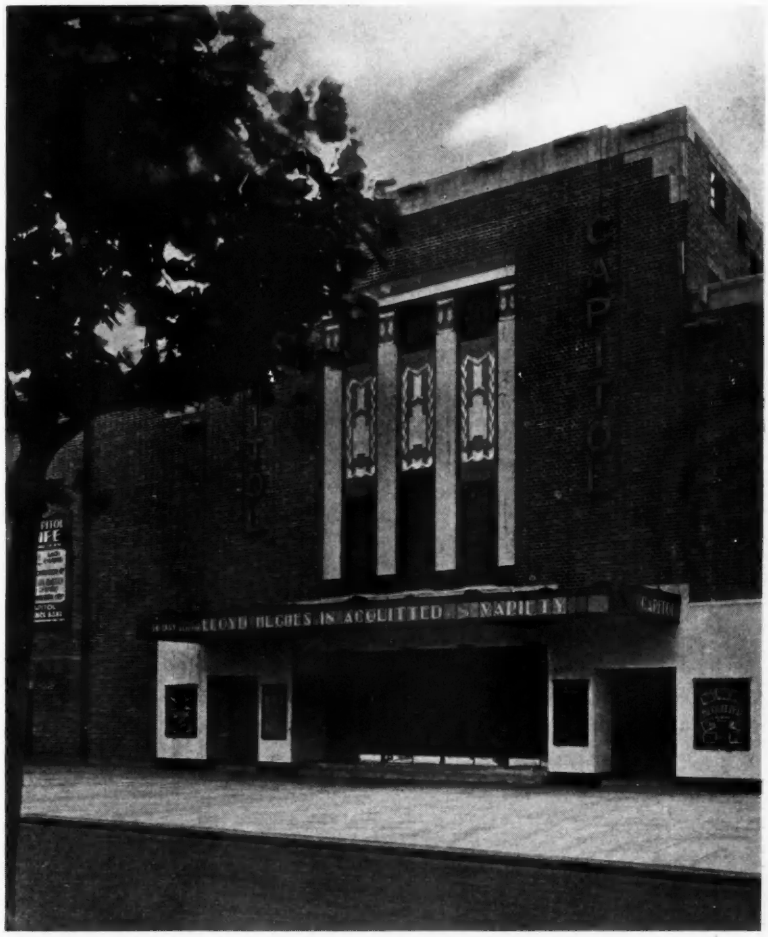
A Typical Suburban Cinema

DESIGNED BY
ROBERT CROMIE

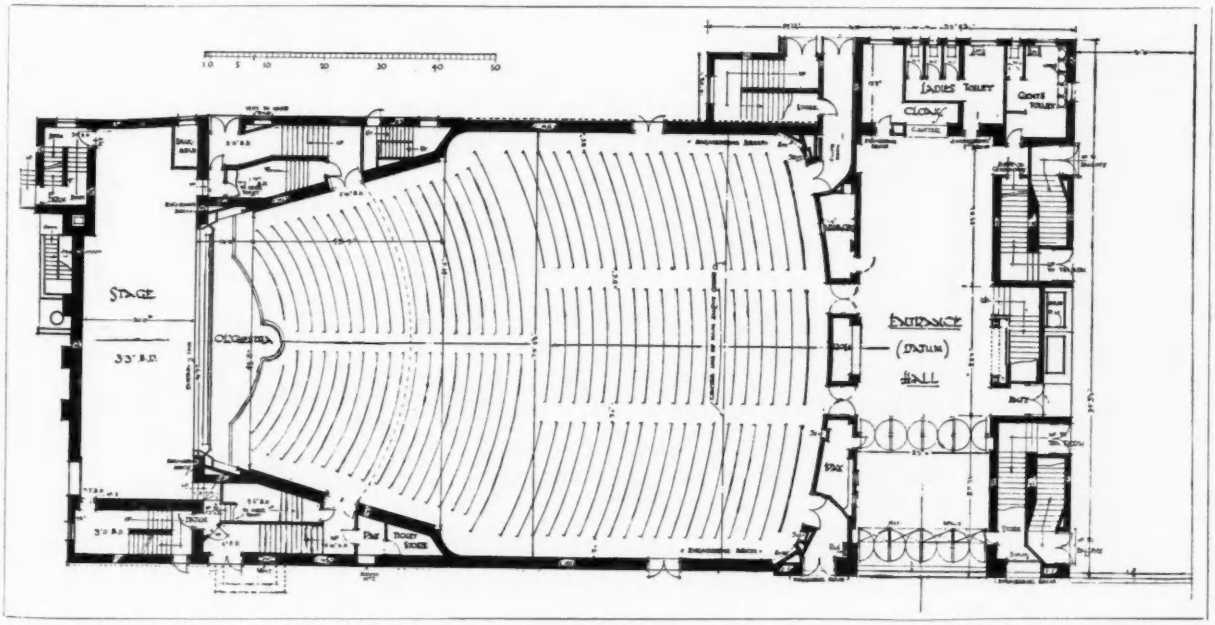
THE Capitol Cinema has been extolled in a journal devoted to the design, building and equipment of such places as an "example of what a suburban hall should be. Complete in every essential, dignified and efficient, even to its car park for 100 cars; fireproof, safe and well planned, and decorated in the best possible taste, it deserves every success."

Which really means that comfort and convenience have been the first considerations in designing it. That this should be so is perfectly right, for this country has a reputation in these matters that experienced visitors from abroad have often applauded. Taste in decoration is a more individual concern; in this respect the house is in conformity with the current lavish criteria.

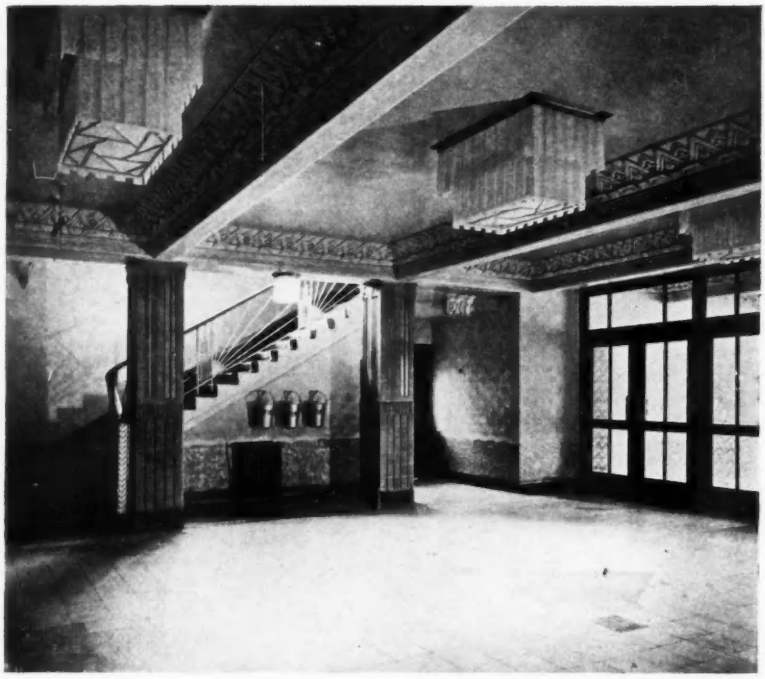
It occupies a site measuring 200 ft. by 86 ft., with the long side to the main road. The main entrance is therefore at one end, and affords, with its stucco, inlaid with ceramics in green and gold, black and white, relief to the general mass of mottled brown brickwork, pointed with white cement. A marquise, cellulose-painted, shelters the doorways, and, in the fashion of the day, the



The entrance feature occurs, as will be seen from the plan below, near one end of the frontage of the building to the road. The walls are of mottled brown brick, with white pointing, the central panels, of stucco inlaid with ceramics.



Plan of the stalls floor. Seating is provided for approximately 1,208 persons. The entrance and exit facilities include two pairs of doors to tea-room and balcony, respectively, giving direct access from a side street passage, via separate staircases.



A corner of the entrance foyer. The doors on the right give straight-through communication with the street, through the vestibule. An extra exit, beneath the stairs to tea-room and balcony, leads to a side passage.

building is silhouetted with neon tube lights. Nor have poster-boards, suitably illuminated, been omitted. The doors themselves are of black oak, with chromium fittings, and engraved French glass.

Passing through these, one enters, first, a vestibule, in which automatic ticket-machines are installed, and thence, the entrance foyer. Facing one are the cloakrooms; to the right, an extra exit to the street and stairway leading up to the tea-room and balcony; and, to the left, two pairs of swing-doors to the stalls. This foyer, measuring 54 ft. by 24 ft., has a floor of tiles and terrazzo, and silver, black, jade-green and blue are predominant in the colour-scheme; the joinery is of dark oak.

Within the auditorium itself there is seating for 2,000 people—over 1,200 in the stalls. An interesting point is that the balcony has been placed comparatively far back, and with a rake and sight-lines calculated to provide for the arrival of the large-scale screen. The proscenium opening is 40 ft. across and 23 ft. high, with the organ grille inclined forwards above it. The walls are in textural plaster, finished a warm champagne above a mottled dado. Orange and silver relieve the Nile



Capitol Cinema, Winchmore Hill.]

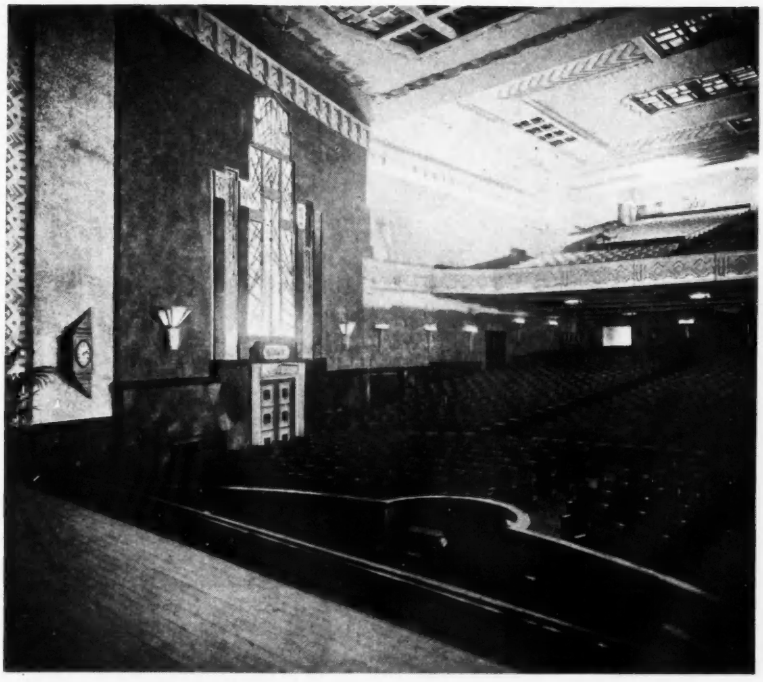
The tea-room has an oak floor and an orchestra alcove—one of several—for dancing, and is lit by the three-window feature of the main entrance. The walls and ceiling form a quasi-octagonal outline. The entrance from stairs leading up from the foyer is seen on the left; next to it is a glazed draught screen.

green of the ceiling, which, in addition to each side-wall, has lay-light panels. The proscenium curtains and the carpets match in soft green, the chair upholstery being in green and beige.

Occupying the void behind the balcony is the tea-room, 64 ft. by 24 ft., with an oak dancing floor, and decorated in dark green and "sunshine." A number of alcoves are formed under the rake of the balcony floor, one of which can be used for a dance orchestra. The kitchen accommodation is conveniently arranged for the service of teas in the balcony. Administrative offices and stores are planned over the tea-room.

As usual, consideration has been given to the use of the stage for the presentation of theatrical programmes. It is some 64 ft. wide by 20 ft. deep and possesses a steel grid and fireproof curtain, while adjacent are six dressing-rooms, music store, bandsmen's and musical director's rooms. A private projection chamber is also provided.

The electric installation includes a battery of accumulators for secondary and emergency use. Vacuum cleaning apparatus is fitted, and a system of electric fans, to exhaust air through grilles of large area. Heating is by a low-pressure hot-water service.



A view of the auditorium, looking towards the balcony, from the stage. The ceiling has a series of lay-lights, illuminated from behind, like the panels in the splayed side-walls, which are glazed with leaded Flemish glass.



[*By Robert Cromie.*

The proscenium arch is surmounted by the organ grille, inclined forwards. The walls have a mottled dado, with textured plaster above, finished champagne colour. The proscenium curtains of soft green silk velour harmonize with the carpets, while the upholstery is in green and beige damask. The prevailing colour of the ceiling is Nile green.

MODERN DESIGN IN AMERICA

BY CHARLES W. KILLAM

The author, who is Professor of Architecture at Harvard University, makes a thoughtful and suggestive survey of the trend of design in the United States. After identifying current phenomena and analysing their causes, he inquires, very pertinently, whether, if they are to dominate design, architects must not learn to be modern in their use of materials and economies as well as in surface treatment. His argument, which conveys many lessons applicable in this country, is reprinted below, slightly abridged, from The Architectural Forum *of America.*

NO one man knows enough to discuss this subject in all its aspects. We can each try to contribute from our particular training, experience, and reflection.

No one solution can fit our diversified problems—a residence, a theatre façade, a shoe shop front, an office building, an apartment house, a church, a memorial on the Lake Front in Chicago or in the Charles River Basin in Boston. Some of these structures are by their nature ephemeral; others are to be long-lived. Some have environments without any claim to respect; others cannot in decency disregard their environment.

The interest of the so-called modernist in this country has been largely a matter of superficial appearance, not in the structural use of new materials to give utility, speed, and economy. The so-called modernist is experimenting with the horizontal windows, the black or white bricks, the directional textures, the shiny metals, the unusual woods, and the so-different ornament, all largely superficial things. He has continued to use brick and stone, although sometimes torturing them into forms they had escaped in the past. The student in the architectural school assumes that all façades are to be of concrete or of glass, and that all corners must be built of curved glass. Entrances no longer have horizontal lintels or curved arches; they must be mysteriously and precariously spanned by stone cut into unnatural forms or bricks contorted into wiggly courses. He also assumes that all ceilings are to be stepped in horizontal and vertical planes, a cross-section dating back to the stone-corbelled ceilings of the Egyptians and Assyrians, but having no excuse in modern structural methods except cheapness, if done in ignoble metal-lath and plaster.

Obviously, we should not limit the usefulness or increase the cost of our modern buildings by clinging to the materials or forms of the past. But we can welcome the new masses of our modern buildings and the new materials and methods now available without being so sure about some of the new ornament. We may admit that a score of columns, a hundred modillions, or a thousand eggs and darts, all alike, leave us cold. On the other hand, it is difficult to get much enjoyment from the modern glorification of the triangle, the groove, the steam radiator, the directional surface treatment, all copied from the savage's whittled paddle or war club, or the curled-up fern-like vegetation copied from prehistoric fossils.

No matter what the change in fashion for the overcoat of our steel or concrete skeletons, we have continued to use masonry as the material of the overcoat. We had to use masonry when walls were bearing walls, and when buildings lasted for more than a generation, but it is one of the most inefficient materials to use with the skeleton construction today. In the case of cut stone, our labour of today is much more highly paid than in the past, although, on the other hand, machinery has greatly reduced the amount of manual labour as far as stone-cutting is concerned, particularly if the designer will acknowledge the twentieth century and see what he can do with machinery. At best, however, brick, stone, and reinforced concrete are extravagant materials to use to keep out weather and fire and to support light floor loads. Should we not try new materials, particularly for our commercial buildings and for our short-lived buildings?

Modern construction has added steel and reinforced concrete to the masonry pier, lintel, and arch of the past. These new materials allow slenderness in columns. They have much greater resistance to transverse bending than stone, hence shallow beams can be used over longer spans than is possible with stone. They can be used so that the thrust of vaults or domes of large spans may be eliminated or resisted, so that thick abutting walls are not required.

The possibility of slender piers has affected our window sizes and shapes. Windows in vertical walls were an unimportant element in the public buildings of the Greeks and Romans. In Gothic cathedrals, as in our modern factories, the wall became a series of windows between piers which were in general made just large enough to carry their loads. The vault thrust in the cathedral delivered an oblique load to the buttress, thus requiring much heavier masonry than would have been needed for vertical loads. After the Gothic days architecture reverted to a construction of walls with relatively small openings. The early New England mill building had large wall areas and small windows. The New England textile mill of heavy timber, slow-burning construction, developed in the latter part of the last century, gave us again an architecture of large windows between small piers, the piers being no larger than necessary to carry the loads. The spandrels were thin and often recessed from the outside faces of the piers. The early high office buildings had brick bearing walls. Their designers, although with the already developed mill building before them, adhered to the old scheme of walls with holes punched in them. They did not at first emphasize the piers by setting the spandrels back. Later the iron or steel columns in the outer walls, and still later the complete skeleton construction, allowed the pier to become a mere fire- and weather-protection for the column, and the spandrel wall a mere enclosure extending from window head to window sill. As the buildings became higher, the designers chose to accent the verticality by setting back the spandrel walls, perhaps using a different material, and thus throwing the narrow vertical piers into greater prominence, as though the buildings were built primarily for the columns instead of for the floors. They wasted much valuable rented space by setting the spandrel wall a foot or more back from the faces of the piers. Now we are swinging round to horizontal lines, as though the building were built entirely for the windows and had no vertical structural members, even at the corners. Architects have designed the over-emphasized vertical buildings and the over-emphasized horizontal buildings within a few months and within a few blocks of each other.

Suppose a real modernist dropped into the United States today to analyse our problems and to examine our solutions. Let us consider particularly the commercial building and still more particularly the high building of skeleton construction and of relatively short profitable life. The modernist would see that we have materials in infinite variety—their fitness to carry loads, to resist fire, to resist passage of heat, cold, and sound, their waterproofness, and all other physical characteristics definitely known and comparable one with the other. Great organizations of producers, with engineers and inventors ceaselessly at work, have in their minds, or even in being, new materials or combinations of materials awaiting only the acceptance by architects or the revision of building laws to put them into use. The modernist would observe the congestion of our narrow streets with loads of brick, stone, concrete, and plaster for new buildings. He would see these heavy materials hoisted hundreds of feet into the air and see the brick and stone set by slow and high-priced labour with very little aid from machinery. The owner demands speed in the construction so that his investment can commence to earn, because he is going to tear the building down in thirty years. We stick to slow methods of hand assemblage at the job instead of taking advantage of the rapidity and economy of maximum preparation in factories and a minimum of manual labour at the job. Our masonry walls get dirty, effloresce, and disintegrate on the surface. They drop pieces of stone and terra-cotta to the street. They are ill-fitted to keep out moisture, and we spend money and space on flashings, damp-proofings, and furrings, often in vain. In thirty years they are obsolescent, and we tear them down and congest our streets again hauling them to the dumps because brick, stone, concrete, and plaster have so little salvage value. We are continually extending the use of the machine in the preparation of materials, but machinery helps us little in setting brick or stone in place. We have specialization among the contractors, each trade demanding that it be free to complete its work without waiting for any other trade. We have labour unions deciding or fighting as to which trade shall do which work.

As soon as the modernist had become acquainted with these facts he would wonder why we went to Greece or Rome or the Middle Ages or the Renaissance or to the Mayas for our forms, materials, and methods. Still more would he wonder why we go to France, Germany, Holland or to the Scandinavian countries of today.

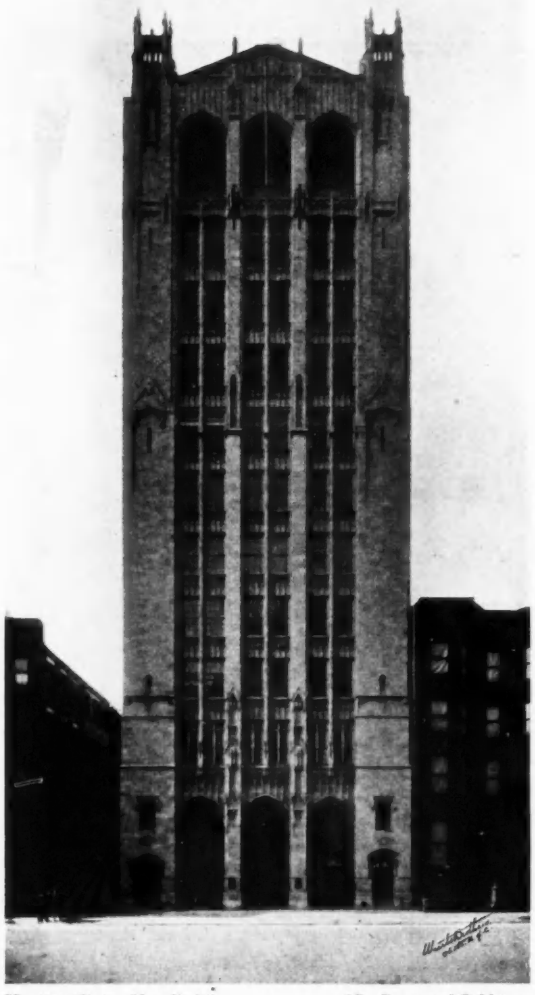
If he watched buildings in course of construction he would see strange things. He would see long stone lintels supported by concealed steel or reinforced concrete beams, with the stone columns put in later when they arrived from Europe. He would see columns with shafts of marble but with plaster capitals, coloured to imitate bronze, supporting a plaster cornice painted to imitate quartered oak, the columns being tucked in on top of a floor which had to be strengthened to hold them, and beneath another floor which did not need their support. He would see 8-inch rolled steel H-columns supporting floors and roofs and backing up Ionic stone columns 4½ feet in diameter which supported an entablature. The great stone columns shut out light and made the interior area about 4 feet narrower than it needed to be. He would see similar steel columns supporting floors and roofs but concealed by Gothic buttresses 3 feet wide and projecting 4 feet from a thick wall, the buttresses abutting nothing. He would note that these columns and buttresses were put together, slowly, stone by stone, by high-priced manual labour. He would see a great technical school, dedicated to study of the most modern sciences, housed in reinforced concrete buildings, overcoated in limestone brought a thousand miles, designed in a style two thousand years old and three thousand miles away from its home. Within a few miles he would see well-designed factories far better fitted to house such a school. At the same time in the same cities he would see cathedrals, collegiate buildings and private residences being built in the old manner with steel and reinforced concrete sometimes left out as sacrilegious and uncraftsmanlike modernisms. He would see vault thrusts resisted by the most extravagant of masonry members, a buttress resisting oblique forces. He would see malformed wooden trusses which would exert a thrust on the walls if they were true wooden trusses, but would find that here where buttresses are needed they are not relied upon, concealed steel resisting the deformation of the truss. He would see brick sand-blasted



Los Angeles County Hall of Justice. [*By Allied Architects' Association of Los Angeles.*

"No matter what the change in fashion for the overcoat of our steel skeletons, we have continued to use masonry as the material of the overcoat."

to make it look old, and stone and wood hand-hewn after the machine saws and planers had left it smooth. He would see sway-back roofs, bricks laid crooked to make them look "interesting," moss-covered slates imitated in burnt clay, asbestos, or tin. He would observe that the people who worshipped in these cathedrals, studied in these colleges, or lived in these houses, were not the least bit mediæval.



Hampton Shops, New York.] [*By Rouse and Goldstone.*

" Designers chose to accent the verticality by setting back the spandrel walls, as though the buildings were built primarily for the columns instead of for the floors."

They travelled in motor cars, motor boats and airplanes, whose forms and materials had been revolutionized in a decade, and there was no attempt to imitate mellow age in the finish of any of them.

If he watched the alteration of a building he would see interior bearing partitions of masonry removed to give wider open spaces, masonry exterior piers replaced by a different kind of masonry, reinforced concrete construction noisily and expensively cut through, with no salvage value; plaster removed in a cloud of dust, floor construction patched with heavy and dripping reinforced concrete.

If he watched a town in a hurricane, conflagration, flood, or earthquake, he would see buildings built of bricks, stones, or blocks disintegrating into their primary units, killing the population in the process. If he watched the destruction of a building by fire he would see expensive cut stone spall in moderate heat.

If he watched the destruction of a building to make way for a new one he would see expensive cut stone dropped into a chute to a truck, but the brick taken away to give that "interesting" texture to a new country house. He would notice that wooden and steel beams, and metal in general, seemed to have some salvage value. He would note that skeleton construction allows arcading the sidewalks as shown in the Barclay-Vesey building of the New York Telephone Co., but he would find that we made very little use of this possibility for street widening.

We have used, and in some cases abused, a few of these modern materials and methods. We have used reinforced concrete properly for foundations. We have used it honestly and decoratively in some ceilings where the structural coffers, joists or slabs have been designed to show, and have been coloured, a welcome relief from metal lath and plaster imitations. We have used reinforced concrete improperly in façades which were made up of vertically reinforced piers but which we have rusticated horizontally. We have formed it expensively into arches which were acting structurally as beams. We have cast it into blocks which imitate quarry-face stone. In bridges the architect is afraid to admit the slenderness of the reinforced concrete barrel and conceals it with a stone arch ring three times as thick, or with a concrete face rusticated into false voussoirs. Reinforced concrete has been pushed by organizations of cement manufacturers and by contractors whose financial interests were dependent upon that one material. From being either a floor material or a wall material it has become a structural whole, whose backers insist that economy and convenience require that they be allowed to do all of their work without reliance upon other trades, a reinforced concrete skeleton being recommended even for the lowest buildings, although the masonry walls may be amply thick to support the floors. We have built floors of reinforced concrete which weigh as much or more than the live loads which they support. We make our beams, girders, columns, and foundations twice as strong as the live loads require because of this over-heavy dead load. The reinforced concrete building is difficult to alter and expensive to tear down. Should we not take a fresh look at our needs and our building materials of today and see if we cannot use lighter, cheaper materials and materials with a larger salvage value?

Let us now try to face some of our problems as a thorough-going modernist would. For years we have used sheet metal to cover roofs, bay windows, spandrels, and shop fronts, as well as for the entire walls covering steel frames in garages and industrial buildings. Why not build our high buildings and our buildings which are to be obsolescent in thirty years with a steel frame with no exterior masonry what-

ever? The steel can be fireproofed, perhaps with less thickness than at present, and then the whole outside can be covered with bronze, copper, aluminium, stainless steel, nickel silver or other metals, shop-fabricated as much as possible, light in weight, except for fireproofing. Such thin walls would save large areas of rentable floor space.

Do we need to fireproof steel beams, girders, and columns in all buildings with 1 to 4 inches of tile or concrete or outside columns with 8 inches of brick or stone? At the times of our great conflagrations—Chicago, Boston, Baltimore, San Francisco, and smaller fires elsewhere—a few more or less fire-resisting buildings were surrounded by great numbers of combustible buildings with combustible contents. This condition is now changed in parts of many cities. Large areas of our cities are now built up with fire-resisting office buildings, apartment houses, hotels, banks, railroad stations, theatres, and some other buildings with no great amount of combustible contents, with weather-tight, fire-resisting, requiring no painting or cleaning, resisting earthquakes and gales, having high salvage value. Back of this sheet metal, insulation can be provided by light weight, incombustible material. Plastering could be omitted altogether metal partitions, doors, windows, furniture, and incombustible finished floors. In such cases why is it necessary to fireproof such buildings with the same heavy floor slabs and column protection as for storehouses or manufacturing buildings filled with combustible



Royal Building, New York.] [*By Starrett and Van Vleck.*

"The New York zoning ordinance of 1916 resurrected the set-back buildings of the Chaldeans, and it has spread like wildfire to cities where they were needed, and where they were not needed, but which wanted to look like New York."

contents and surrounded by wooden buildings?

We have for longer or shorter periods used roof constructions much lighter and less fire-resisting than our first-class floor construction. Why not use these lighter types for floor construction, such as pressed steel joists, trussed joists, pressed steel floor plates, thin concrete or gypsum floor slabs?

The New York zoning ordinance of 1916 resurrected the set-back buildings of the Chaldeans, and it has spread like wildfire to cities where they were needed and to cities where they were not needed, but which wanted to look like New York. Set-backs to fit modern needs would be entirely impracticable with the wall-bearing buildings with brick arch or wooden floor construction of a century ago. The steel or reinforced skeleton makes them entirely possible, even if not economical. It still remains true, however, that even with the skeleton construction the rectangular prism is the most economical frame to construct. Some of these buildings have few set-backs, each one a full bay, so that the successive faces are on column lines as in the Lincoln building or the *Daily News* building in New York. Others have more numerous set-backs, many of them of less than a bay, and thus start new wall columns, not on the lower columns but on heavy girders, thereby increasing the steel weight as well as complicating its design, shop-work, and erection. Some of these buildings set back a full unit of the plan, for instance, the width of a typical office. Others are more complicated both in cross-section and in plan. They copy the silhouette of a Gothic tower which set back 4 inches by thinning the wall, but the skyscraper is ten times as high as the tower, and the set-back becomes 40 inches, and therefore cannot be gained by thinning a 12-inch curtain wall. Then the various faces are played with, battered and bent, hollowed and curved, as though a thousand-foot high building were a 10-inch high wedding cake. It isn't; it is a combination of 12-foot high stories enclosed in masonry walls supported at each floor on steel beams which would like to run straight from column to column.

If the plan of an office building or an apartment house is economically arranged in one story it is difficult to believe that it is equally well planned in six or eight other stories of varying areas and shapes.

In conclusion, if architects are to dominate the design of buildings, must they not be modern in more than mere surface treatment? Must they not use modern materials, methods, and economies not reluctantly but enthusiastically?

DAMP IN BRICKWORK

The following notes on the penetration of rain through brickwork represent one of many inquiries submitted to the Information Bureau of the Building Research Station, and the reply thereto, summarised:—

AN Association of Builders report:—

The penetration of rain through 9-in. brickwork, which is the standard of construction required by most local authorities, has given rise to a considerable amount of trouble. Some of our members find that the penetration takes place in the bricks and some unquestionably attribute porosity to both joint and brick. It is generally accepted that a 9-in. brick wall, no matter how constructed, cannot be relied upon under every circumstance to keep out the rain. The real problem, therefore, is the construction of a 9-in. wall in such a manner and of such materials as to give the longest possible resistance to penetration.

In small house construction, using traditional walling materials, there is an excess of strength and an insufficiency of weather protection; in other words, the governing factor in deciding the thickness of traditional external walling material is the minimum which will keep out the wet.

The factors operative when damp penetrates to the internal plaster on an external wall are (1) those due to wind acting upon water passing over the external face and (2) the capillary properties of the materials of construction.

What usually happens with walling materials is a very high rate of absorption at first, due to the head of water plus capillary attraction; as frictional resistance in the pores increases with depth of penetration, the rate is gradually slowed up. In order that water shall flow out over the interior surface of the wall a pressure greater than the "capillary head" must be exerted. At smaller pressures the liquid surfaces formed at the orifices of the capillaries will merely become distorted, assuming a convex shape on account of which forces are developed which will oppose the flow of water.

In a porous material the limiting pressure which the larger pores can sustain through distortion of the liquid surfaces may easily be exceeded by the wind pressure; as a result water will flow through the larger pores and will wet the whole internal surface of the wall. The curved surfaces which oppose the capillary flow through the smaller pores will then merge in a continuous liquid film and no capillary forces, apart from frictional forces, will oppose the penetration of the material.

In common bricks and, in fact, all bricks, with the exception of a few semi-vitreous engineering bricks, which are absolutely impermeable, the capillary properties are such that, with a continuous supply of water at one end moisture will travel straight through the length of the brick.

It will thus be realized that, quite apart from pressure due to wind effects, a 9-in. wall of ordinary bricks containing direct capillary paths to the interior in the form of "headers" tends to be fundamentally unsound. A good drying atmosphere on the outside, following periods of rain sufficiently rapidly, is the factor which renders most walls tolerably weather-resistant, since the capillaries of the brick will not usually have time to fill up before the direction of flow is reversed.

In 14-in. walls there is no direct capillary path through brickwork, the moisture has farther to go and the flow is therefore slowed up, and there is more likelihood of it being reversed in time by drying conditions outside. At the same time, a capillary path is still provided by the mortar, and the success of some 14-in. walls and the failure of others probably largely depends upon the degree to which joints are filled.

As a means of preventing damp reaching the interior, the obvious remedy is a continuous cavity in the external wall. From the point of view of strength the 11-in. brick cavity wall is adequate for small house construction. It does, however, require careful design and construction and we can say that the only cases brought to our notice where the 11-in. wall has failed to provide water-tightness have been due to avoidable causes, e.g. ill-considered design at window and door heads and jambs, or the provision of a capillary path by allowing mortar droppings to remain on the ties.

The alternative of providing a cement rendering, stucco or roughcast coating to the solid wall cannot be said to be a certain preventive of moisture penetration. It often serves the purpose, but with the development of shrinkage cracks or crazing (which defects, it must be admitted, cannot be wholly guarded against), such a covering becomes a definite disadvantage for the simple reason that while water will enter and tend to saturate the wall, the evaporation to the outside will be prevented or restricted, and it will almost certainly occur from the internal surface; any salts dissolved during the passage of the moisture through the wall will thus be crystallized at, or near, the internal plaster surface, usually with disastrous effects on plaster and decoration.



ENGLISH PRECEDENT No. 129

REDLAND GREEN CHAPEL, BRISTOL

The Redland Green Chapel is the work of the eldest of the remarkable Paty family who gave to Bristol many of its finest eighteenth-century buildings. The Patys were not only architects but workmen, and one of them, William, left on his death, in addition to a "capital and extensive business" as architect and statuary, a large stock of monumental and architectural marbles.

The influence of Vanbrugh is noticeable in this powerfully-modelled façade, which bears a striking resemblance to the latter's entrance front for Kingsweston House. Vanbrugh's lateral windows have gone; his characteristic pediment light remains, however, and the window over the entrance doorway becomes a niche of the same shape.

By such means, and by the strengthening of the doorway itself to just the right pitch of importance and severity, an ecclesiastical tone is skilfully infused into the design.

—[C. BARMAN]

LETTERS FROM READERS

Oxford, Past and Present

SIR,—On page 185 of THE ARCHITECTS' JOURNAL for August 6 last, you published a photograph entitled "Two Ways of doing it, in Oxford." In the foreground are two old houses simply and soundly built, unassumingly dignified, and not without that romantic charm with which the old builders were able to invest their simplest building, an art which we have not only lost but which, it would appear, we cannot even appreciate.

The modern contribution to these old houses consists in the advertisements plastered over the old work.

Behind these well-bred old buildings, which even contrive to look well-bred in spite of the posters which disfigure them, is an entirely vulgar modern shop, the kind of shop with which modern commercialism is disfiguring our old towns. No printable adjectives of mine can convey the devastating ugliness of this so-called "orderly" corner treatment.

And yet it is this building which the D.I.A. have dared to hold up as a shining example. I cannot believe that the D.I.A. does not include amongst its members some artists not blind to beauty in building. It is to them I appeal. If this is too much to hope, let me appeal to the painters and ask, say, Augustus John, which of these two buildings he would chose to make a picture of. The old building, even with its flamboyant posters, might give him a subject not without inspiration, but I doubt whether any artist could infuse any beauty into the dull and common-place vulgarity of the modern shop. If this is the kind of lead the D.I.A. is giving to the modern designer of shops, the sooner it puts up its own shutters the better.

BAILLIE SCOTT

Regarding Doors and Windows

SIR,—As an outsider, with no technical knowledge in building matters, I feel some diffidence in airing my views to experts, but I should like to have authoritative answers to two pet grouses of mine.

First, who killed the Venetian blind, and why? Surely it is easily the most efficient type of blind, since it permits easy regulation of the amount of light and air admitted to the room. Presumably it is "unhygienic," but I wonder how much dirt the average chintz curtain conceals.

Secondly, why cannot doors be arranged to slide open instead of being hinged? A sliding door would save a good deal of space at present wasted, would not fray the carpet, and, incidentally, would probably shut out more draughts than the average door. It would also eliminate possible collisions caused by the sudden entrance of one party coinciding, as Euclid would say, with the intended exit of another. In most cases, I imagine, the door would be arranged to slide into the wall, so that no difficulty would be experienced on the score of ugly appearance.

HENRY B. BLESSINGTON

Restoration of Old Buildings

SIR,—Letters have appeared in *The Times* criticizing an appeal for the better care of old inns which was printed in the annual report of the Society for the Protection of Ancient Buildings.[1]

These letters were concerned with the photographs of a restored inn at Salisbury. There an ancient house, probably dating from the sixteenth century, had been modernized in the eighteenth century and given a hanging bay-window and some other sash-windows. At the same time the timber framing, till then probably exposed, was covered with plaster. The plaster covering was usually put on for two reasons: (1) To keep the weather out, and (2) to cover the damage and alterations to the framing which had accompanied the changes in the form of the windows. Lately the eighteenth-century windows have been taken out, the plaster stripped, and the damaged framing has been restored, exposed, and darkened. At the same time new windows, in imitation of those of the sixteenth century, were added where they were supposed or known to have been; and no doubt some old mullions, and perhaps a complete window or two, were found and exposed.

Before this was done the plastered inn, with a group of other plastered houses, made a pleasant, picturesque unit in the street. Now, in marked contrast to its neighbours, the inn stands rather proudly self-conscious. It conforms to the demand for the appearance of antiquity. Because the Society suggests that the preservation of such an ancient building is better when it is not accompanied by emphatic stress on archæological knowledge and by the partial or entire neglect of the other attributes of building, the owners of the house are offended and have voiced their opinions in the columns of *The Times*. If any are more interested in the subject than in the consequent newspaper controversy, I would ask them to refer to the note in the Society's

[1] The report referred to was reviewed in the last issue of THE ARCHITECTS' JOURNAL.—ED. *A. J.*



BEFORE—



—AND AFTER RESTORATION. [*From* Country Life.

The King's Arms, Salisbury.

annual report in which the general nature of the Society's views, rather than a consideration of the Salisbury case, is set forth.

Some further suggestions on the principles involved in this kind of architecture are offered below.

The success of such work rests in reality, and a sense of reality derives from a balanced consideration of values, which, because they have different names, incline to be stressed separately and in excess, so that the single unity they together possess is lost. The enthusiast for "form" will be careless of history, or the keen archæologist will consider nothing but the "ancient," the business man "economy," the melancholy lover of romance little but the evidence of decay. This list can be extended.

It may be that this generation leans too heavily on the past and shows a too artificial appreciation of old things. But, accepting (as do these critics of the Society) the belief that the ancient building art deserves a very considerable share of human attention, the Society asks that respect be given to the handiwork of the eighteenth as well as to that of the earlier centuries. The article criticized was written to plead for this respect, and at the same time to suggest that the reproduction of ancient features (conveniently called restoration) has a value that is strained, self-conscious, and even false. The Society thinks these qualities are unpleasant, and it believes that others will share that opinion.

My committee asks those who criticized our action to believe that the Society appreciates the sincerity with which they have acted, and it should be well known that the Ancient Buildings Committee of Salisbury have more than once been the chief protectors of some ancient building—Harnham Bridge is an example of this.

Incidentally, a committee representing the Royal Archæological Society, the R.I.B.A., the London Society, and the S.P.A.B. has been formed to explore the possibility of compiling a central card-index of prints, drawings and other architectural records. It is proposed to limit the scope of the committee's work to buildings at least a century old and to those of England only, but it is hoped that parallel action will be taken in Scotland and Wales.

It is realized that an immense amount of such records are in private hands, and it would be useful to the committee if owners would give particulars of their collections *now*, for with this knowledge the committee will be better able to form an idea of the extent and scope of the enterprise.

A. R. POWYS,
Secretary, Society for the Protection of Ancient Buildings.

Guildford Cathedral Competition

SIR,—I have read the letter of "Fane" in your issue of August 13. I may say, in answer to him, that the site for the proposed cathedral can easily be ascertained by a visit to Guildford.

I can assure him that the objections raised in the second paragraph of his letter need cause him no anxiety.

As for his remark about "younger men" and "*dusty* portfolios" (italics mine), I need only say that the latter are quite unlikely to receive much attention from the committee, and, in regard to the former, that the procedure adopted is identical with that employed by the Liverpool authorities. This method produced a Scott, and there would seem to be no reason why it should not have a similar result in the case of Guildford.

LIONEL E. BLACKBURNE,
ARCHDEACON OF SURREY

Settling-Up Honeywood: xiii

FRED BLOGGS INTERVENES

BY KARSHISH
(H. B. CRESWELL)

Sir Leslie Brash has taken loud exception to the bill of extras, the failure of the inside painting is a serious defect, and Spinlove, the architect, has written to Wychete, an architect friend of experience, to ask his advice in dealing with an outbreak of dry rot.

WYCHETE TO SPINLOVE

My dear Spinlove, 26/8/26.

This is an awkward business, and if you cannot deal with it yourself you ought to get the advice of someone on the spot, but, of course, *you* alone are responsible to your client, and no one but yourself can decide what course to take. The question between you and the builder is a difficult-one. If I were you I should not press your point of view to the extent of making him antagonistic. He may be willing to do what is necessary without any charge, but, quite naturally, he will take no action that will involve him in responsibility. This is the reason he refuses to advise you, and he will not, you will find, handle the matter as a "defect" under the terms of the contract. If he did this, he would admit liability for the whole extent of the damage. This may, of course, become extensive.

I do not, however, think that it will extend. In my opinion the builder's view of the cause of the outbreak is right, but, as it appears not to be a vigorous growth, I think that the amount of damp is probably very small, and that the use of infected wood may have led to trouble which otherwise might not have occurred.

To make the house perfectly safe it would be necessary to cut away the concrete floor-foundation against internal walls, as well as external, wherever there are "solid" wood floors—that is, over nearly half the area of the house—and make good clear of the dampcourse; but I think the case will be met if you replace all affected skirtings and blocks on top of an impervious bituminous coating made continuous with the mastic in which the wood blocks are laid, and covering walls behind skirtings. Bellflower and Snooter Ltd. manufacture bituminous coatings for various purposes and would advise what best to use. You should also treat the back parts of the china cupboard, and all contaminated work, as well as the back of the new, with a solution of sulphate of iron. There is nothing better for killing dry-rot and it does not smell as creosote does.

If this fails, you will have to cut away the concrete. If it succeeds, you can treat any other similar outbreaks in the same way, but let us hope that there will be none. I have no doubt the ventilation of the panelling in the billiard-room will prevent any trouble there. Ever, my dear Spinlove,

Yours sincerely,

Wychete's tactful reminder that Spinlove is responsible to his client, and that whatever action he takes must be his own decision, is much to the point. Wychete's advice—whatever it is worth—cannot lead Spinlove astray; for the reparation, if experimental, is simple, and should it be without effect, little time and money will have been wasted. There is, however, the risk that while Spinlove is dealing tentatively with this small outbreak, far-reaching growths, which immediate drastic action would prevent, may be establishing themselves secretly in other parts of the house. The decision whether to take this risk or not and, if not, what measures to adopt, devolves on Spinlove, and no one can relieve him from the need to rely on his own discretion, for that discretion is inseparable from a responsibility which belongs to no one but himself. It is the exercise of judgment, hampered by the considerations of cost, of risks, of exact justice, of conflicting interests, of uncertainty as to facts, of misunderstandings and of diverse individualities and dishonest or incapable agents, which is the chief care and preoccupation of architectural practice. To design a building, to draw and specify

every part of it, and to direct its construction and see it completed with no other anxieties and dilemmas than belong to the exercise of those duties, is unknown—except, possibly, to a few very good architects, after they die.

SPINLOVE TO WYCHETE

My dear Mr. Wychete, 27/8/26.

Thank you extremely for your most kind letter. I am enormously obliged for your advice. I will act on it at once. Surely, as the dry rot is due to the builder's use of infected wood, the outbreak is *his* fault and he can be held responsible for making good ?

With kind regards,

Ever yours sincerely,

Spinlove's impetuosity here again prevails to his discredit. He plainly tells Wychete that he has not troubled to read his letter.

WYCHETE TO SPINLOVE

Dear Spinlove, 28/8/26.

I give no advice but merely make suggestions. There is no means of knowing that the wood was infected, and the " cause " of the outbreak is, in any case, *damp*.

Yours sincerely,

Exactly ! Wychete was particular in warning Spinlove that he must use his own judgment : by replying " I am taking your advice at once," Spinlove announces that he is relying on Wychete's. Wychete, naturally, will allow no such interpretation of his letter. Wychete was also particular in exculpating the builder; and if Spinlove had reflected, he would not have requited his benefactor by plaguing him to say once again what he has already been at pains to make clear.

SPINLOVE TO GRIGBLAY

Dear Sirs, 27/8/26.

I enclose specification of work in making good where dry rot has appeared. If you see any objections to the proposals will you let me know ? The work should be completed if possible before the end of next week when Sir Leslie and Lady Brash, who are away, return.

Yours faithfully,

GRIGBLAY TO SPINLOVE

Dear Sir, 28/8/26.

We have to acknowledge your instructions for making good where dry rot has appeared, and will do our best to complete same before the end of next week, as requested.

Yours faithfully,

Grigblay has no intention of committing himself in any way, it will be noticed. Spinlove will realize how much support and guidance he has had in the past, now that he can get neither.

GRIGBLAY TO SPINLOVE

Dear Sir, 30/8/26.

As promised you by Mr. Grigblay, we have referred to our foreman Bloggs for explanations of certain extras under " Various minor works " and other matters queried by you, and enclose sheets with his answers to same which we hope will give the information you want.

Yours faithfully,

(ENCLOSURE) GRIGBLAY TO MR. F. BLOGGS

c/o Marston Grigblay,
Builders,
By Portenwalsh Mead,
Baggerfoss, Hunts.

HONEYWOOD

Dear Fred, 7/8/26.

The architect queries extras as attached sheets. The governor wants your answers in blank spaces. No doubt you have your diary along. Enclosed is copy of Statement lettered so you can pick up easy. The jim crow was put on passenger last night. The governor says if you can't manage take along to Potters, Nottington, who will straighten while lorry waits. To be charged up against Ry.

Yours,

T. P.

Hear with O.K. F. Bloggs, Aug. 28tht.

This letter must have been sent to Spinlove pinned to the other papers, by an oversight. It shows Grigblay's business to be conducted in the old-fashioned style that still lingers, with the best traditions of the building crafts, in the provinces, where son follows father to the bench or the scaffold, and the master calls his men by their Christian names, knows the domestic circumstances of each, and distributes joints and poultry among them at Christmas. There may be somewhere in this world happier men than these, associated in more delightful work, but it is a hard thing to imagine. The tail of the letter indicates that Bloggs is in difficulties with a steel joist delivered bent by the railway.

Bloggs, it will be noted, is business-like. He answers the letter concisely and dates his signature. The " attached sheets " proclaim a most studious devotion on his part, handicapped by a very gritty pencil and by india-rubber deeply involved with butter. The papers are greatly fatigued at the folds, and Bloggs has evidently lost the saucer of his tea cup, but—with the help of stamp-edging—they survive, and Bloggs, as he might be trusted to do, has done the job, although it has taken him three weeks to finish it.

HONEYWOOD

The Architect queries the following. The letters in margin refer to statement items.

A. EXTRA IN FOUNDATIONS, ETC.? ARCHITECT SAYS HE NEVER ORDERED ANY.

Sep. 20tht 24. Architect bring along drawings of terrace, put out cause she want steps moved further up kitchen end. It were the day her little nurse dog made to bite him so he will know it. First I must lower bench of terrace he says; then after I peg out that wont suit, so then it was three steps he ordered and that wont do neither, it got to be two he says, wich where $9\frac{5}{8}$" and brought bench down to 7" or thereabouts above top of footings, and no harm as I could see, but I must put foundation down four courses along front and jump up with extra step on return he says. I put Rumbler on it and after dinner found he add got mixt and rekoned four courses has $13\frac{1}{4}$" instead of $11\frac{1}{8}$" gauge we was on, but architect passed all on 13tht see dairy hearwith for measurs has per weekly return.

Bloggs's identification of Lady Brash with " she," after an interval of six months, is eloquent of the place the lady had won for herself in his regard.

Oc. 13tht. Archteckt come on to pass trenches, dont like bit of slop down drawing room end (S). He drop his pipe and I send Joe Perks for bit of waist I add in the window of my office, so he will know all about it. He wont have me to scrape up but I must dig out 4" to satisfy, and I level up with concrete to save jumping footings has he agreed to measure I give (see dairy) and marked with the toe of my boot for architects approval the oner see me do it and can say.

Nov 11tht. Syd broke his hand, architect was there so will know he ordered me to lower excavation for cellar floor one course, reason cause headroom to thight at door under stairs reason of lowering ground floor $1\frac{1}{2}$"

Nov 25tht. I had bench pegs set for screed of cellar floor and he came on afternoon latish about Hoochkofs facings and left a letter on my table I sent after. He dont like top course of footings standing above screed cause of bottom being dug 3" lower, and I must knock off to level. I says suppose inspector see what were at dam Mr. Potch he says, but after he left he came back and I haerd him shouting wehn I was in my office and put my head out to see who was and he had come back to gate and called I was to put floor back as it was and headroom were good enough, so there was that bit extra digging and hard core to level up again after, as per my weekly and see dairy.

As the due offset of footings is defined in the bylaws, the local surveyor would object if he found a course being cut away.

B. EAVES SPROCKETS AND TILT TO RIDGE? ARCHITECT REMEMBERS GIVING DIRECTIONS BUT SAYS NO EXTRA.

June 6tht 1925. Architect come on roof an add me to fake a bit of eaves

has per No. 41 but that dont suit, must be bigger projectn. and tilt. Well gage wehre 3½" so he says better make it one course, so I botched it to get what he wanted but the rafter feet was all lined and cut and no tilts would carry over that far, and what finish would he have an so I says it mean cutting back feet and fix sprockets to make a job, an he says yes do it and make a job so I done it D.W. as per weekly and all stuff cut out in shop which proves it see dairy.

14 Juy tht. Tilers add left. Architect says must put more tilt to gable ends of ridges. It come on raining pretty sharp an he tore his mac standing in the door of my office wehre staple was jagged after I had to burst the door along of the boy losing the key, so he will remember. I say all I can, but it got to be done to satisfy and a nice job pulling off the bonnets and all that fancy filling on face and breaking of the verges with there double undercloaks an pointing and filleting in cement, it could not only be a botch but he would have it and pleased when it were done he told me Jan 3 tht.

As the verges of the roof, where the tiling ends at gables, are slightly tilted so as to throw the water back on to the roof and prevent it being blown to run down face of gables, it is natural that the end ridge tile or "bonnet" should be given a corresponding tilt. This tilt at the end of ridge is conspicuous, and is exaggerated in the designs of some architects, apparently because a strong upward curve of the ridge to apex of gable is often seen in old houses as a result of settlement of the roof timbers, and has the deadly sentiment of the "dear old." The same exaggerated effect is given by artists who make drawings of houses for Christmas cards and kindred destinies. Spinlove had various fanciful notions for the roof at Honeywood, most of which were wrecked by the obstructive inertia of the British craftsman when asked to vary from accustomed usage; and one cannot help regretting that he was not similarly baulked of his extravagantly belled eaves and "old moated grange" gable ends. The devices of the building crafts, which have served centuries of skilful and efficient use of humble materials, are a pure delight to everyone who has studied them, and have come to be loved as a tradition of beautiful building; but it is the perfection with which they serve their purposes, and not the forms they present, which delight us; and to give those forms an emphasis beyond what their purpose demands is fatuous. It is the thing that, in the main, makes the modern villa a monstrosity; and as it has no part in architecture, and as Spinlove is evidently a man of educated taste, we must suppose that his preoccupations with his ridges and eaves was to get them to look right, and did not result in making them look wrong. Strong associations are aroused when we view any building, and if the style or tradition of its design awakens a certain group of associations it is important that every detail of the design shall accord with that tradition and strengthen the association. In a house with eaves, no feature is more expressive than the degree of projection of them. As the rafter feet had been cut to agree with the drawing (No. 41) they could not properly be used to carry the increased carry-over of the tiles. They had to be cut back close up to the plate, and false rafter feet, set at a slightly flatter slope, to give the required tilt, spiked to them. These are the "sprockets" spoken of.

C. TAKING DOWN AND REBUILDING RETURN DIES OF TERRACE WALL. ARCHITECT STATES IT WAS YOUR MISTAKE.

Feb. 23tht. Architect come on in white trousers he left his bat against flooring stacked in kitchen an a long job to find so he will know wehn it were. He said break back at side of dies had ought not to be battered same as face but plumbded, but I reckon his drawing No. 22 showed it other way same as I had it, and so I told him and charged D.W. has per weekly.

P.S. There were a line on that drawing you could not tell waht was meant for and he dont know neither so that makes sure, for if he cant say, how were it my fault not to.

Privet. He says I dont know a good drawing when I see one; an I says may be has I dont but I knows a bad one when I sees hit I says. Privit.

Spinlove seems to have had words with Bloggs on this matter and not to have had the best of the exchange.

Bloggs's microscopic memory is clearly an immovable barrier to all argument or question, and indicates resources of a kind that will infallibly repulse any attempts at cross-examination. His acumen in forestalling denial of the circumstances he adduces can only be the result of tried experience in similar contests. What foothold can Spinlove find for protesting "I remember nothing about it," when he is told the event occurred on the day he dropped his pipe in the trench, or mislaid his tennis racquet? Demonstrably, Bloggs knows exactly all that happened, and Spinlove, who can remember nothing—even of the muddied pipe and the bit of waste fetched from the foreman's office to cleanse it—clearly has not a leg to stand on.

This proof of the evidence of Fred Bloggs covers five and a half laborious foolscap sheets, and I will make no further excerpts. Pinned up with the sheets are certain pages from his "dairy"; and the ungrudging liberality with which he has gutted it in the good cause is almost touching. "Leaves from a Diary" has a new meaning for me since I have seen Bloggs's. The entries are hieroglyphic and also cryptic; and if I describe the pages as having been "torn" from the book, I only do so because no more destructive-sounding word occurs to me. "Captured in Battle" best describes their appearance.

[NEXT WEEK: XIV—LADY BRASH REALIZES HER IDEAL]



Thorpe Hall, Peterborough. A general view, indicating the position, in the garden wall, of the doorway, of which a near photograph and measured drawing appear on the facing page.

WALL DOORWAY AT THORPE HALL

A detail photograph, and measured drawing (from Hakewill) of ramped volute to pilaster of doorway in wall at Thorpe Hall, Peterborough. These ramped volutes are also found in the designs of windows, stairs, fireplaces and panelling in this house; indeed, they were favourite features with Inigo Jones and John Webb, but sometimes the volutes were flattened. Photographs of this doorway and of the other details mentioned appear amongst the illustrations to "A History of the English House" in the November, 1929, issue of "The Architectural Review," and this particular subject was reproduced, with others, to a much smaller scale in THE ARCHITECTS' JOURNAL *for January 23, 1929. The general view of the house and the wall, given on the facing page, was not, however, then published, and is now included to show their inter-relation.*

NATHANIEL LLOYD



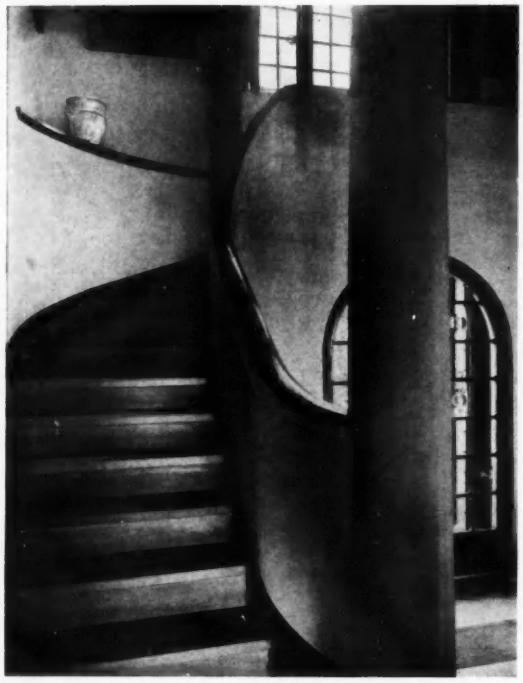
The main front and carriage court from the north-west. The wing to the left is occupied by service quarters, with maids' bedrooms on the first floor, and the main living-rooms lie on the far side of that on the right.

A WESTMORLAND

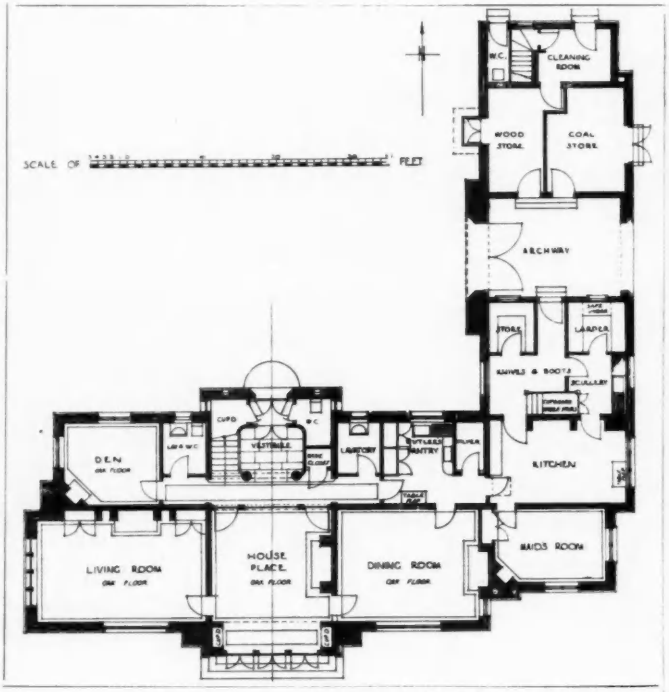
DESIGNED BY

SILVERDALE, though actually in Lancashire, belongs to the Westmorland topography, and in designing "Greywalls" for a rocky limestone eminence overlooking Morecambe Bay the aim was to produce a modern home in the old Westmorland style.

Practically all the rock on the site remains as it was, only a hummock having been removed to make room for the house and carriage court. The stone used in the building has a natural weather-worn face, while those portions that are rough-cast are of brickwork, with 9-in. outer wall, into which various pieces of limestone are introduced. For the roof, green Westmorland slates, with a ridging of native stone, have been employed. The house looks, and is, capable of withstanding the severest weather; all openings to the south and west have



The main staircase, running up from the entrance vestibule, of which the inner door is seen behind the column, is of green Westmorland stone.



The symmetry of the block containing the principal living-rooms speaks for itself. Stores and cupboards of various kinds are liberally provided. On the first floor are five main guests' rooms and bathrooms.



The garden front. The central ground-floor french casements light the house-place or inner hall. All the windows are double. The garden, of living rock, remains the natural home of rock plants.

MODERN HOME

THOMAS H. MAWSON AND SONS

double bronze casement windows. Internally, all joinery is of the best Austrian oak, and, in the pursuit of tradition, the majority of the fittings, down to the door furniture, which is from an old local wooden pattern, are the work of craftsmen of the district. The staircase is of green Westmorland stone, and so is the fireplace in the dining-room, which incorporates a clock, steel-faced, and with hand-wrought steel pointers, also made locally.

Equipment of the most modern order is installed : every room has a vacuum cleaner; and the heating system is interesting, in that it is completely concealed and operates through louvres in the floors. The air is drawn in through special ducts and passes over radiators in its path. The building cost approximately £25,000.



The fireplace in the dining-room is carried out in unpolished green Westmorland stone, and frames, above the mantelpiece, a clock, with a steel face and hands, hand-wrought by local craftsmen, in common with most of the internal fittings throughout the house. The finest Austrian oak has been utilized for all woodwork inside the house. The windows are bronze casements.

SOFT GOODS WAREHOUSE

Houndsditch, London, E.

DESIGNED BY LEWIS SOLOMON & SONS

THIS new building is built as a showroom and warehouse for hosiery and soft goods. It has been designed with a stone front, a facing material now the vogue in Houndsditch, as can be seen by the five or six new buildings built there during the last few years.

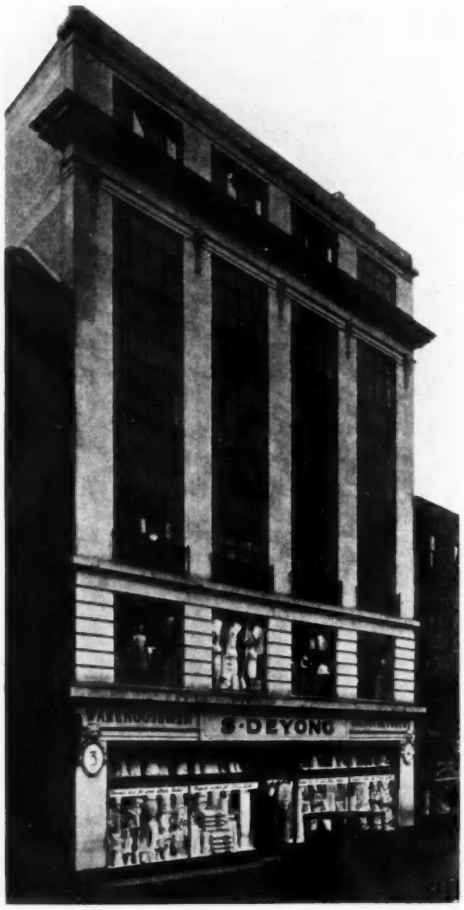
From a constructional point of view the new warehouse is of particular interest, as it is built over one of the main sewers of London —the Irongate sewer. This runs under the rear of the property, parallel to its frontage and in such a position, directly under the main back wall, as to make it impossible to carry down to the solid ground any foundations for the steel frame.

In conjunction with the consulting engineers, Messrs. S. H. White and Son, of London, a scheme was designed whereby the rear portion of the building is cantilevered out over the sewer for a distance of about 9 ft., this cantilevered portion carrying a part of the building for its full height of seven stories. Some of the main cantilever beams carrying this construction are heavy plate girders 42 ins. deep, tailed down at the front by the weight of the front portion of the building.

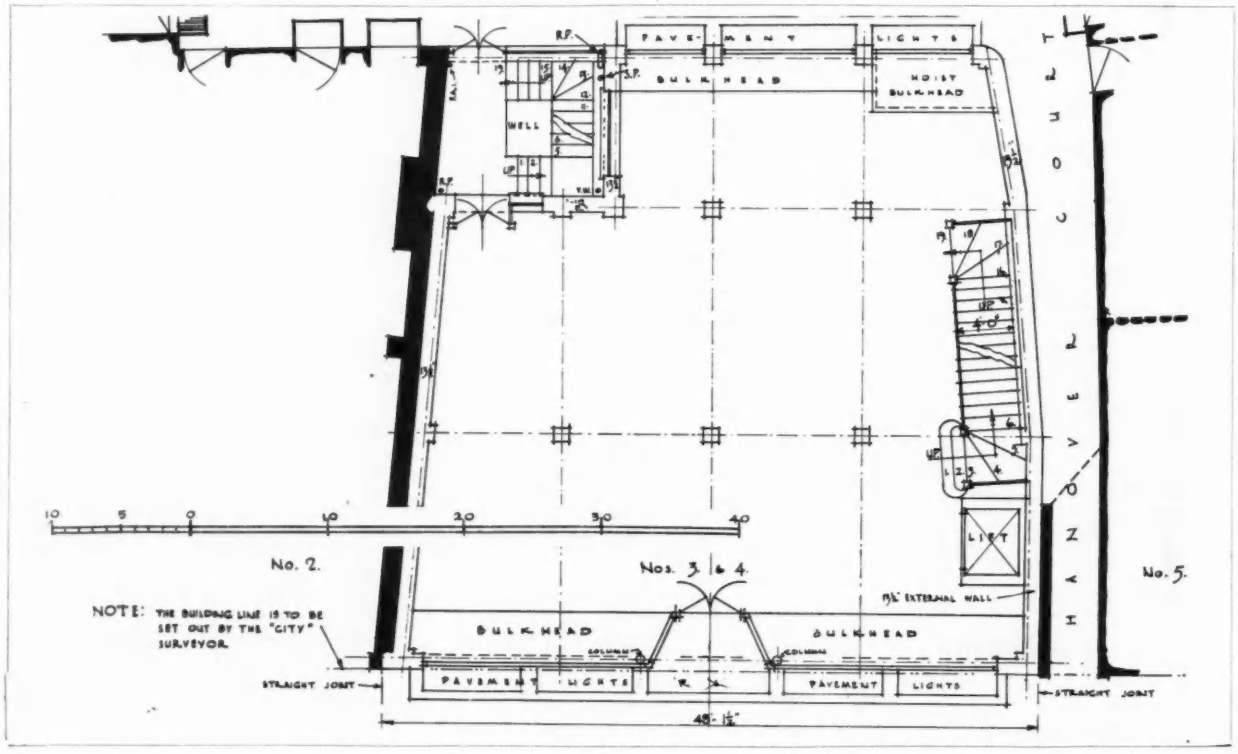
In addition, further difficulties were experienced during the course of erection, as dangerous structure notices had been served in respect of the party walls on each side of the property, and it was decided to repair and uphold these party walls during construction.

Matters were made still more difficult by the fact that Houndsditch is an extremely narrow street, carrying a great volume of traffic, with the result that loading and unloading operations had to be fitted in to suit the traffic.

All the floors are served both by an electric passenger lift and by an electric goods lift.



The Houndsditch front. The building consists of basement, ground and five upper floors. It is of steel frame construction, with fire resisting floors, to comply with the L.C.C. 1909 Act.



Ground floor plan. The full height of the rear portion of the building is cantilevered out for a distance of 9 ft. over one of the main sewers of London that runs directly beneath it.

QUESTIONS THAT ARISE

Open Fireplace

K. T. writes: "*I enclose a sketch* (not reproduced) *of an open fireplace that I have had added to my living-room. Ever since it has been finished it has been unsatisfactory and nearly always smokes, sometimes so badly as to make the room uninhabitable. The builder informs me that these open fires, burning wood, always smoke. Is this a fact?*"

I am not at all surprised that the fire shown in your correspondent's sketch is unsatisfactory. The 9 in. by 9 in. flue and the sharp bend immediately above the opening, followed by the almost horizontal gather-over, would make any fire smoke.

Wood smoke is sluggish and needs ample room above the fire to eddy about. No wood fire should have a flue less than 12 ins. square, and with as few bends as possible. The accompanying sketch shows a typical cottage fireplace. There seem no hard and fast rules for making a perfect flue, but one or two points are so general and found in districts so widely different that they seem to carry the weight of individual experiments arriving at the same solution.

The recess at the back varies, but is usually about ⅓ the total width, and sometimes starts from hearth level; this seems to lead the smoke up from the iron fire-back.

The hearth is often some 3 ins. above the cottage floor level, and the oak bressumer is very often chamfered off on the inner side, which allows the draught a clear passage upward to clear the smoke that may eddy in the side space above the hearth. Logs are of course burned on dogs and, as your correspondent probably knows, the secret of a wood fire lies in the ashes, which should never be cleared out, but left to form a hot pile beneath the logs. LL. E. W.

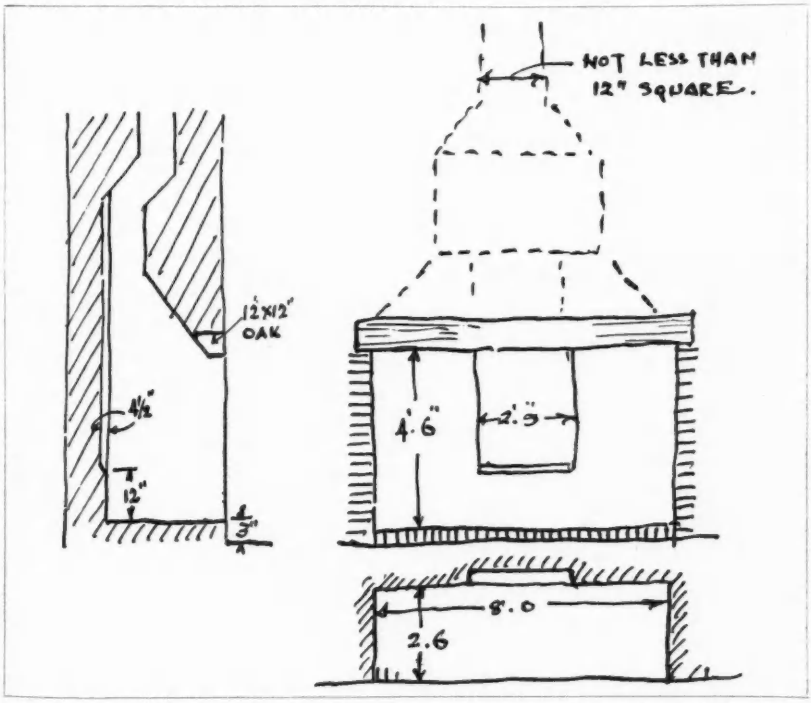
Moisture on Walls

B. M. writes: "*What is your expert's opinion as to the best method of preventing moisture finding its way through brick walls, ruling out tar as being too unsightly?*"

This question has exercised the building world for generations, and various solutions are in evidence over the countryside, such as slate or tile hanging, rendering or painting. Of these, I should exclude rendering, as defects are liable to occur, which in many cases accentuate the trouble.

If practicable, painting is probably as efficient as anything. In comparatively recent years, various waterproofing solutions have been put on the market. Some of these are colourless and some are not. The Building Research Board doubt if any are permanent. Karshish, in THE ARCHITECTS' JOURNAL for June 11, 1930, page 897, mentions Grigblay's tip of soft soap. This might affect the appearance of the brickwork, but, on the other hand, it would not cost much to try. H. D.

[*Further reference to the above subject is made on page 266 of this issue.*—ED., *A.J.*]



Section, elevation and plan for wood-burning open fireplace. (See reply to "K. T.")

Reconstructed Stone

S. D. writes: "*I am constantly having particulars sent to me by firms who specialize in reconstructed stone, but their catalogues give little information of the method of manufacture. Is the process a secret?*"

Certain firms may have special processes which they are loth to divulge, but the general manufacture of reconstructed stone is no secret. The chippings, etc., are powdered to grit and mixed with a definite proportion of lime. The mixture is thoroughly slaked, a large quantity of water being added, and is then consolidated into blocks under pressure.

The blocks leave the press the consistency of chalk, and are hardened by exposure to the air. Finally, the stone is dried at a temperature of 100° and placed in steel tanks and the air exhausted. Carbonic gas is then turned on until the carbonization of the hydrate of lime is complete.

All kinds of stone can be reconstructed by this process, but the best results are obtained from the oolites. T. N.

Thatched Roofs

E. W. writes: "*I have been asked to design a cottage with a roof of thatch. I understand, however, that new thatch is still more inflammable than old. What precautions should I take against the possibility of fire?*"

Where thatch is used as a roofing material considerable protection against fire risks can be obtained by interposing thin layers of slag wool between the individual layers of the thatch.

This slag wool is a by-product obtained in the steel-making industry and is a perfectly incombustible and non-conducting material. On this account it is already used for pugging-in floors and roofs, and for casing-in hot flue pipes, but in conjunction with thatch its use is something of a novelty, in spite of the fact that it cannot mar the æsthetic appearance of the roof.

Silicate of soda, however, would satisfactorily fulfil the requirements of a fireproofing medium for thatch, were it not liable to make the thatch brittle. This brittleness is not so marked if the silicate is used in conjunction with powdered asbestos, the necessary solution being prepared by treating 35 lbs. of solid silicate of soda and 35 lbs. of powdered asbestos with 10 gallons of boiling water. The syrupy form of silicate of soda, which is now used for hardening cement surfaces, should not be used in the preparation of this fireproofing medium. C. H. B.

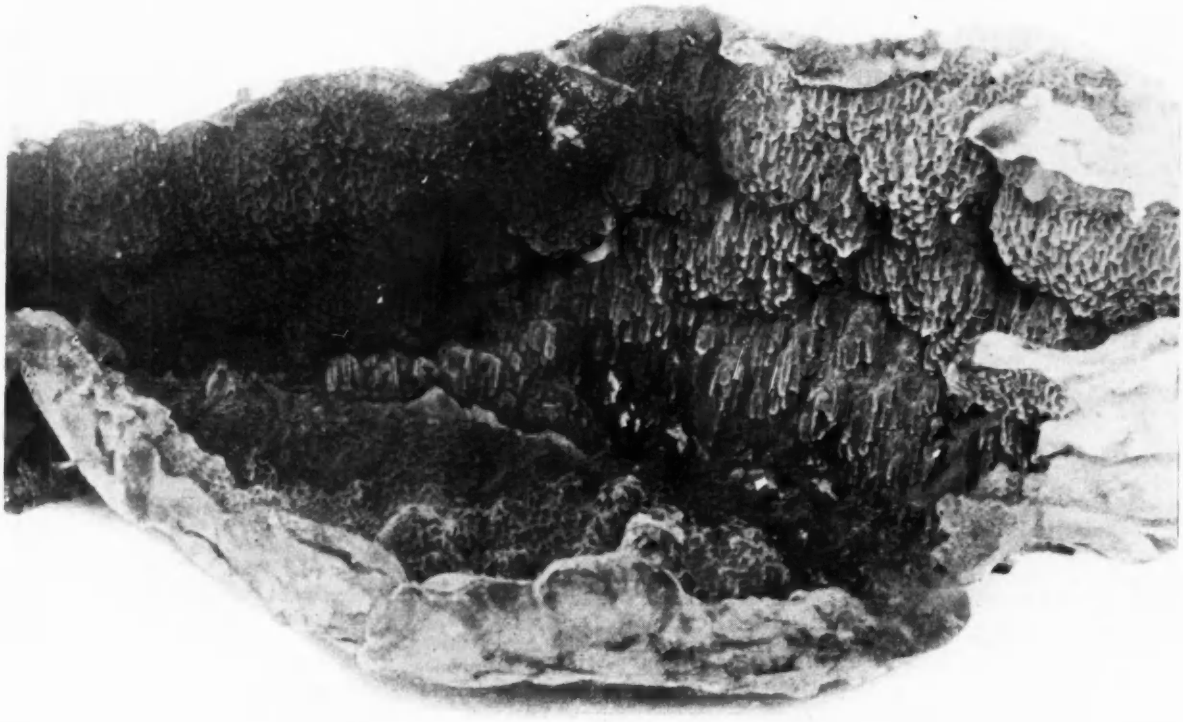


Figure two. A fruit-body of Merulius lacrymans, *the dry-rot fungus, found on a skirting-board in a house. Note the folds on the surface and the stalactite-like form of these, when in a vertical position.*

WHAT DRY ROT LOOKS LIKE

THE illustrations on this page accompany the article on dry rot, begun on the facing page, and to be continued in the two succeeding issues in which "The Specification Writer" appears. In it the author discusses comprehensively, from the scientific point of view, the nature, the prevention, and the cure, respectively, of this very prevalent disease. The contribution of this important study will have a special interest for those who have followed the later history of "Honeywood Grange," in which Karshish has just described an outbreak of trouble due to this cause. The article and the two accompanying illustrations of the fungus, and the typical appearance of wood due to its ravages, will form a valuable pendant to that episode, and will, it is hoped, assist readers in identification of the root of the mischief when, sooner or later, it comes in their way.

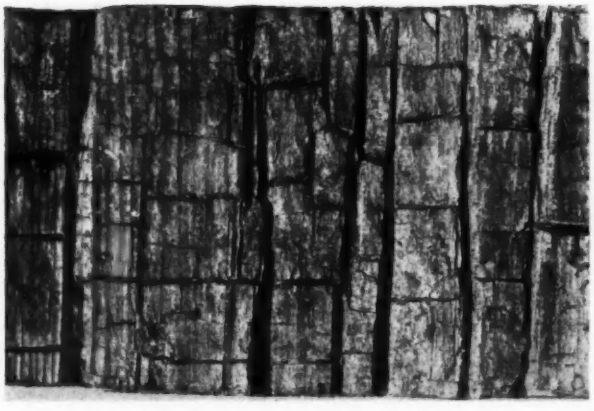


Figure three. Typical decay caused by Merulius lacrymans. *Note deep fissures and transverse cracks breaking up the wood into cubes.*

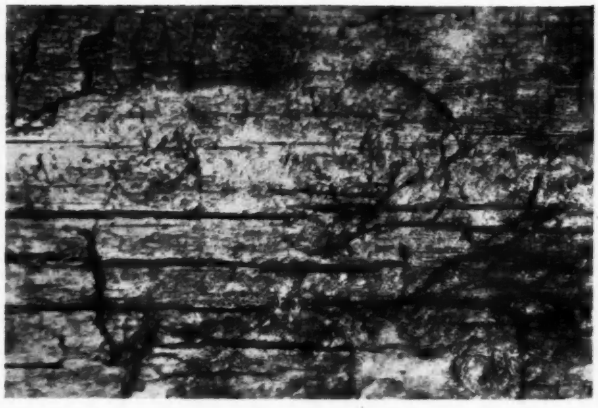


Figure four. Decay caused by Coniophora cerebella. *Features to note here are the longitudinal cracks and the blackish strands.*

THE SPECIFICATION WRITER

Dry Rot: Cause, Prevention, and Cure

BY W. P. K. FINDLAY, B.SC., A.R.C.S., D.I.C.

THE timber in a building may suffer from various troubles and occasionally a serious deterioration sets in, some time after construction is complete. The destruction of the timber may be caused either by a form of decay, which is known as "dry rot," or it may be due to the attacks of small wood-boring insects, commonly called "worm." This article deals only with the former; attack by insects, of which the most common is the so-called "Death Watch Beetle," occurs chiefly in old buildings, and is especially frequent in oak panelling and in the oak rafters of old churches. It may be readily recognized by the round flight-holes, made by the beetles, when emerging from the wood, and by the presence of a powder, consisting of the very small rounded pellets of the insects.

Dry rot is caused by fungi—that great class of plants, to which the mushroom and toadstool, as well as the moulds and yeasts, belong. One thing common to all of them is the absence of the green colouring matter which enables the higher plants to make their own food materials and they are, in consequence, dependent upon organic food already made by other plants. Many of them are parasites and live upon other living things, but the vast majority are scavengers, and decay and dissolve organic materials whenever conditions are suitable for them. The wood-destroying fungi belong mainly to this second class, although some of them can rot away the heartwood of living trees. Now, as fungi are living plants, they require much the same conditions for growth as other plants; there must be present, first, a supply of suitable nourishment; secondly, water; thirdly, air for respiration; and fourthly, a suitable temperature.

The principal fungi which live on wood and cause its decay belong to a class of the higher fungi, called the *Basidiomycetes*, because the spores, which are the minute bodies by which the fungus is propagated, are borne upon a club-shaped cell called the *basidium* (see figure one, A, D, E). These spores are produced in enormous numbers; a single fruit-body may produce many millions of spores which, being small and light, are blown about and become widely dispersed. When one of these spores falls upon a suitable food material such as wood, which is sufficiently wet to cause it to germinate, it starts into growth: a fine thread called a *hypha* grows out. These hyphæ can penetrate into the wood and bore through the cell-walls, and they spread rapidly. The hyphæ of most Basidiomycetes are distinguished by their having "clamp connections" or "buckles"—see figure one, B and C. By means of the ferments and the acids which they produce, they dissolve away part of the wood, which thus becomes available for food. After considerable growth of the *mycelium* (a whole collection or mass of hyphæ) in the wood, the fungus usually produces a fruit body on the exterior. Upon this the spores are borne, and so the cycle is completed. These fruit-bodies are often the first sign of the fungus that we see, and they may take the form of toadstools, brackets or plates.

Quite a number of species of fungi have been found in houses and, under extremely damp conditions, may cause

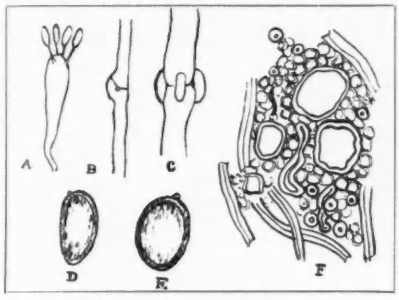


Figure one.

A. Basidium with four spores.
B. Clamp connection or buckle of a Basidiomycete.
C. Special type of clamp connection in Coniophora cerebella.
D. Spore of Merulius lacrymans.
E. Spore of Coniophora cerebella.
F. Transverse section of strand of Merulius lacrymans *(all highly magnified).*

damage, but, for practical purposes, there are only two fungi of great importance in houses in this country and, of the two, one is responsible for over 90 per cent. of the damage.

The true dry rot fungus—*Merulius lacrymans* is its scientific name—is fairly easy to recognize in most of its stages, although its appearance depends very much on the conditions under which it is growing. The fruit-body, when growing horizontally, is a flat, fleshy, pancake-like object, which may be over a foot in diameter or may be quite small; it is covered with ridges or folds about $\frac{1}{8}$ in. deep and, when mature, assumes a rich rusty red colour due to the millions of coloured spores on its surface. But, when growing on a vertical surface, the folds are vertical also and appear something like stalactites or wide pores (see figure two). There is usually a whitish or greyish margin to the fruit-body, and this may show patches of vivid lemon yellow. When growing actively, it often bears drops of liquid, and these gave rise to the specific name of the fungus, *lacrymans* (weeping). The fungus when growing actively in a very damp place such as a damp cellar or coal mine will produce great snowy masses of mycelium like cotton wool; these often show, secondarily, the bright yellow patches. When conditions are somewhat drier, fairly tough sheets of mycelium are produced on the surface of the wood; these are silver grey when fresh and frequently show tinges of lilac or lemon yellow. The fungus is able to spread across neutral substances upon which it is not feeding, such as iron or stone, by means of these sheets and by means of strands, which are root-like structures often quite as thick as a pencil. These strands enable the fungus to spread from one piece of infected wood to sound wood that may be yards away. They are able to penetrate the mortar between bricks and so attack timber on the other side of a brick wall. They are extremely resistant to drying and possess definite water-conducting vessels or "veins" (see figure one, F).

Frequently the architect is not called in until the fungus has ceased active growth, and all that he sees is the decayed wood in which the fungus still lurks, alive though dormant. Wood thoroughly decayed by *Merulius lacrymans* has a definite appearance; it is light, friable and of a light brownish colour and often dry and powdery (hence the name "dry rot"). It usually shows deep fissures running at right angles and dividing up the wood into cubes which may be small or large (see figure three). This type of cracking serves to differentiate wood attacked by true dry rot from that decayed by *Coniophora cerebella*, the other fungus referred to above as the second important one causing decay in house timber. *Coniophora* causes the wood to split with longitudinal checks and to darken considerably (see figure four); its strands are smaller and finer than those of *Merulius* and soon become brown and, later, blackish. The fruit-body, less frequently seen than that of *Merulius*, is an irregular plate of a dull olive green, covered with small lumps or pimples. *Coniophora* only grows where the wood is definitely wet, due to the presence of liquid water, as from an overflowing cistern, and cannot attack distant dry timber in the way that *Merulius* does.

(*To be continued*)

Damage to Plumbing by Frost

THE sub-committee recently appointed by the Science Standing Committee of the R.I.B.A., to inquire

into damage to plumbing work due to frost, state, in the report of their conferences, that they are of opinion that much of the damage to pipes during frost is due to :

1 : Faulty layout of the pipes and lack of means of protection against freezing.

2 : Inadequate precautions being taken on the approach of frost.

They find that, whilst legislation gives local authorities and water companies power to control water mains and supply pipes in the roadway, there is at present inadequate control exercised as regards pipes within the premises.

In those parts of the U.S.A. and Canada which are subject to severe frosts, hot and cold water pipes are subject to the control and approval of the local authorities. The sub-committee are of opinion that local authorities or water companies should make bylaws putting the layout of water pipes generally on a more scientific footing.

With that end in view, they have formulated suggestions which might form a basis of such bylaws, or, failing that, the proposals would be helpful as a guidance to architects and builders in their work.

On this matter all the representatives called into consultation are in agreement.

The sub-committee's recommendations, in addition to the question of bylaws, are as follow :

CONSTRUCTIONAL DATA

Depth of Supply Underground.—The water pipe from the company's main should be at least two feet under the ground to the inside of the building. Care should be taken that the two-feet depth is maintained until the pipe is within the building, and consideration should be given to the avoidance of air lock.

Stop-Tap.—A stop-tap should be fixed immediately the supply pipe enters the owner's land. Another should be placed as near as convenient to the floor, at the point where it emerges within the building.

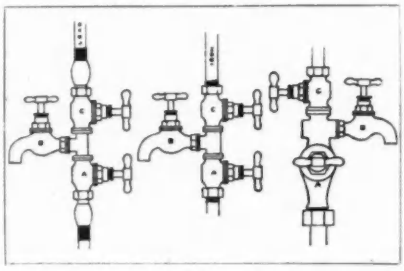
Draw-off Tap.—As near as convenient to the latter stop-tap, a draw-off tap should be fixed, so that all pipes which are branches from the main may be emptied by closing the stop-tap and opening this draw-off tap.

A combined stop and draw-off tap may be used where convenient, and such is recommended.

Supply Pipes within the Building and all Branches.—Supply pipes within the building and all branches to fittings from the supply pipe should, as far as possible, be fixed on internal walls and should be fixed to wood grounds or not directly in contact with the wall, and should be fixed so that they have a fall to the draw-off tap. On no account should water pipes enter the roof space near the eaves, for such a practice not only exposes pipes to risk of freezing, but renders them less accessible. All pipes should be laid so that they have a fall and can be emptied by the drain cock.

Hot and Cold Pipes to Bath and other Fittings.—The rules applicable to " Supply Pipes within the Building " should be followed for hot and cold pipes.

Storage Cisterns.—When storage cisterns are fixed in the roof space they should be carefully insulated by such devices as a wood-casing made to allow approximately a space of not less than 3 inches all round the sides of the cistern, such space to be packed with non-conducting material. A cover of wood should be fitted on the top of the cistern. All pipes in roof space should be laid on grounds and carefully insulated with either boiler lagging, thick felt, or other suitable material, and if from some unavoidable reason



Arrangement of taps on water main, suggested in the R.I.B.A. report, to avoid damage by frost. A and B are the usual stop and draw-off taps; by the addition of tap C, water can still be drawn from B, but without filling the rising main feeding storage cistern.

the water pipe should enter the roof at the space near the eaves, particular attention should be given to insulating the pipe at this point.

The overflow pipe should be insulated from the cistern to the outside wall.

The expansion pipe of a hot-water system should be made to discharge over the tank, so as to avoid such pipe being exposed to the open air, as serious accidents frequently occur by exposure.

Secondary Circulation.—Where the cost of so doing is permitted, a secondary circulation pipe should be taken from the domestic hot-water system (or the central-heating system) to a point near the bottom of the cold storage cistern or cisterns and there formed in a simple coil and the return taken as far as practicable to follow the course of the rising main and/or the main supply pipe from the storage cistern or cisterns. A stop-tap should be placed on this return, in an accessible position, so that this secondary circulation may be thrown out of action when weather conditions do not justify its use.

Stop-tap on Storage Cistern.—A stop-tap should be fixed for each supply pipe as near the cistern as possible in an accessible position.

INSTRUCTIONS TO HOUSEHOLDERS TO PREVENT DAMAGE BY BURST PIPES

Precautions to take before the frost arrives.—

1 : Make certain there is a stop-tap and drain-tap on the main supply pipe after it enters the house, so that you can control the water supply.

2 : Make yourself familiar with what taps and cisterns this pipe supplies, and the method of emptying.

3 : The other cold taps (if any) will be supplied from the storage cistern.

4 : Pipes and cisterns which are exposed to the frost, that is, to a temperature below freezing-point, should be wrapped with hair felt or other non-conducting material.

5 : See that all taps shut off water properly, and do not keep taps dripping.

Precautions to take during frosty weather.—

1 : Shut off the water at night by closing the stop-tap on the supply pipe entering the house, and empty the pipes by opening the scullery cold tap or the tap at the lowest level on the main supply pipe and the drain cock, and flush the w.c. cisterns.

2 : If any of the taps on this supply pipe should cease to run water at any time, close this stop-tap.

3 : If a hot-water tap should cease to run water, but other hot-water taps are functioning, it means that only the branch to that tap is frozen.

4 : If all hot-water taps cease to function, it means that the cold supply to the boiler is frozen, or the supply pipe to the storage cistern is frozen. Draw the fire, shut off the stop-tap in the supply pipe and only then open all hot-water taps.

5 : See that all plugs to lavatory basins, baths and sinks are put in the wastes each night.

6 : The foregoing are general instructions to prevent freezing or render first-aid yourself to avoid unnecessary damage by burst pipes. Send for the services of a plumber immediately a pipe freezes.

MANAGEMENT OF HEATING APPARATUS

In order to avoid danger to heating apparatus and water fittings, caretakers must see that the following instructions are carefully complied with during frosty weather :

1 : Fires in heating apparatus must be kept alight all night. Sufficient fire should be maintained to keep the pipes and radiators warm and circulation should be maintained throughout the building.

2 : The feed cistern and the distributing pipe to the boiler must be covered and protected from frost by sacks, boards or other covering material. This cistern must be examined daily, and if it is found that the supply pipe is

frozen, and that the cistern is short of water, it must be filled by hand.

3: If, owing to unforeseen circumstances, the fire has been allowed to die out, great care must be taken before the fire is re-lighted to see that the water throughout the pipes or radiators is not frozen.

4: All windows and doors should be closed at night, especially those in corridors and lavatories where there are pipes or radiators.

5: All fresh-air inlets, including those behind radiators, must be carefully closed at night, and at all times if the apparatus is not working. Extract ventilators should similarly be closed, where practicable. (This clause refers specially to cases in which the premises are not occupied at night.)

6: In the case of tubular boilers, precautions should be taken as under (1).

[The full report is obtainable in pamphlet form, on application to the Secretary, R.I.B.A., 9 Conduit Street, at the price of 3d.]

LITERATURE

A GERMAN'S VIEW OF TOWN PLANNING

A BUILDING Act for Germany as a whole having been drawn up to replace the various regulations of the different states, the author visualizes a similar procedure in the case of town planning, and, with this in view, has considered the general characteristics of town planning regulations and practice in Europe and the United States.

After summarizing the development of cities during the past century, and the problems now presenting themselves, he passes on to review the salient features of town-planning practice, first in the non-German countries of Europe together with North America, and then in the German-speaking countries and states; concentrating, lastly, almost exclusively on Prussia, as affording typical examples of the way in which regulations are framed to meet various demands.

Herr Heiligenthal sees town planning as something rapidly changing to meet changing needs, and deprecates any form of regulation that does not afford within itself the flexibility these changes may demand. He regards the work he has put into this book as illustrative of the problems and solutions before us at the moment, and promises another volume to be devoted to a forward-looking commentary on these; we therefore find here not so much a comprehensive view of town planning as one illustrating the action and reaction between practice and the regulations controlling it. H. V. L.

Städtebaurecht und Städtebau. By R. Heiligenthal. Berlin: Deutsche Bauzeitung G.m.b.H. Price 12 RM.

THE SCOTS MERCAT "CROSS"

IN the second edition of *The Scots Mercat "Cross,"* Mr. W. G. Black has taken the opportunity to add illustrations, and a description of the Cross of Glasgow, as re-erected from the designs of Mrs. Edith Burnet Hughes, A.R.I.B.A. This cross was presented by the author and his wife—the latter unfortunately died before it was completed—to Glasgow, their native city, "as an emblem of the continuity of civic life from remote times, such as was familiar in Edinburgh and other ancient burghs of Scotland." It stands at the junction of London Road, High Street, and the Gallowgate—a few feet distant from the original site of the old cross.

Most of us are more or less familiar with the market cross as a local landmark in Scotland. It may stand on a platform, or be only raised by a few rough steps from the roadway in a tiny burgh, but as the author points out, it is always a shaft, and seldom a cross in any conventional sense. The name indeed, he says, is both correct and incorrect in a bewildering way, correct because during time of market in old days, the column actually did become a cross by the addition of a wooden cross to the far more ancient shaft such as we may still see at Kilwinning, and incorrect because the name "Cross" suggests Christian and ecclesiastical associations, which are entirely misleading when we try to find out the early history of those monuments, their origin and their purpose. These crosses are not isolated antiquities. On the contrary, the author shows that they have most important relation to similar monuments in other parts of Europe and particularly to the Perrons of Belgium.

The author issues a note of warning against "restoring" crosses without making a careful and adequate study of the monument which it is proposed to "restore."

The Scots Mercat "Cross." By William George Black, C.B.E., LL.D., F.S.A. Second Edition. William Hodge & Co., Ltd., Edinburgh and Glasgow. Price 2s. 6d. net.



The Mercat Cross, Glasgow, from the south-west. Designed by Edith Burnet Hughes. The cross takes the form of an octagonal building of Cullaloe stone, 16 ft. across, with a heavily moulded base and a machicolated cornice. Rising from the platform is a shaft 12 ft. high, surmounted by a unicorn holding a shield displaying the Royal Arms of Scotland. The platform is reached by an oak staircase.

[*From* The Scots Mercat "Cross."]

THE ULSTER SOCIETY'S YEAR BOOK

THE Year Book of the Ulster Society of Architects, 1930–31, which has reached its third year of publication, has just been issued. It has been edited by Mr. R. H. Gibson, F.R.I.B.A., M.I.STRUCT.E., the vice-president of the Society.

The progress that has been made by the Ulster Society of Architects can be visualized by the fact that the annual report of the council for the year 1929–30 states that the Society has fifty members, eighteen honorary members, forty associates, and twenty students, making a total of 128; and during the year the number was increased by twenty-six—two members, eleven associates, and thirteen students. The report also states that the offer has been accepted of a medal to be presented by the R.I.B.A. to the Ulster Society, to be offered as a prize every third year for the best building erected in their area.

The year book contains photographs of the president, Mr. J. R. Davidson, A.R.I.B.A., and the immediate past president, Mr. E. R. Kennedy, F.R.I.B.A., M.R.SAN.I.; the Society's memorandum of association and articles of association, and suggestions and regulations in regard to professional conduct and practice; a complete list of books on architecture and allied

subjects in the Central and branch public libraries of Belfast; a list of the books in the John Lanyon bequest; and a calendar covering the period July, 1930, to June, 1931.

The Year Book of the Ulster Society of Architects, 1930–31. Edited by R. H. Gibson, F.R.I.B.A., M.I.STRUCT.E., vice-president of the Society. W. W. Clelland, Ltd., Belfast.

Publications Received

Building Science Abstracts. Vol. III. (New Series) No. 6, June, 1930. Abstracts Nos. 1122–1290. London: H.M. Stationery Office, 1930. Price 9d. net.

The Hungary Road. By G. U. Ellis. London: Duckworth. Price 7s. 6d. net.

English Monasteries of the Middle Ages. By R. Liddesdale Palmer, A.R.I.B.A. London: Constable. Price 24s. net.

The Modern Dowser: A Practical Guide to Divining. By Le Vicomte Henry de France. London: G. Bell and Sons, Ltd. Price 3s. 6d. net.

LAW REPORT

PUBLIC HEALTH ACT: RIGHT TO BUILD

Attorney-General v. *Manchester Corporation. Chancery Division. Before Mr. Justice Maugham.*

IN this action the Attorney-General, at the relation of Mr. Ben Kanter, of Singleton Road, Kersal, sought the decision of the Court as to whether the Manchester Corporation had the right to build on a piece of land at the junction of Aberdeen Street, Oxford Road and Denmark Road, Manchester. The Attorney-General asked for an injunction restraining the Corporation from allowing a wall, which they had erected, to remain on the land, and from building a tuberculosis dispensary, contending that the land was an open space and that the Corporation had no right to build upon it.

The Corporation replied that as the land had not been dedicated to the public they had the right to build upon it.

Sir Gerald Hurst, K.C., Mr. T. Cunliffe and Mr. John Bennett represented the Attorney-General, and Mr. Spens, K.C., and Mr. Evershed, the Manchester Corporation.

Sir G. Hurst said the land in question was acquired by the Corporation in 1875 for the purpose of making new streets, or otherwise for the improvement of Manchester. The land remained open, however, till 1891, when it was levelled and gravelled, and plaintiff's case was that the Corporation in that way dedicated it as a footway to the three adjacent roads, and it was so used till February, 1929. Counsel's point was that as the Corporation had elected to use the land as an extension of the highway, they now had no right to change their mind. Mr. Kanter was the owner of the Rivoli Picture Theatre in Aberdeen Street.

Evidence was given that for many years the public had an unchallenged right of way over the land in question.

Mr. Spens, for the Corporation, contended that his clients had never dedicated the land as an open space. The Corporation did not require the land immediately upon acquiring it, and under those circumstances there was nothing to stop the public having right of access across the land. There was no intention here to dedicate the land to the public.

His lordship, in giving judgment, said in 1891 the Corporation handed the land in question over to the Parks Committee, to be used as an open space. The land was laid out by the Whitworth Trustees and a drinking fountain was erected, the Corporation agreeing to supply a light and water to it for all time. The Corporation were still doing so. Since 1893 the public had used the land as a right of way. The action of the Corporation in getting the approval of the Ministry of Health to the erection of a tuberculosis dispensary not unnaturally raised objections, and after attempts to persuade the Corporation not to act, a number of the objectors took legal action. Having regard to the Corporation's resolutions concerning the fountain, his lordship said he must conclude that the Corporation at that time intended the layout of the ground should be permanent. Apart from section 95 of the Public Health Act, 1907, he should have felt bound to decide that the Corporation would not be entitled to alter the use of the land. The next question was whether it was possible for the public to acquire a right of way over the land by extensive user. He came to the conclusion that it would be wrong to come to any such decision. The facts were in favour of the presumption of tolerance by the Corporation as against a presumption of dedication, and therefore it must follow that no public rights of way had been acquired over the land. But the real point in the action was as to the true construction of section 95 of the Public Health Act. It was his opinion that the Corporation, acting in good faith, must be the sole judges whether the land was or was not any longer required for the purpose for which it was acquired. He must take it that the Corporation had honestly determined that it was not required for the purpose. Did the section enable the Corporation, with or without the approval of the Ministry of Health, to override either public or private rights? The reply was that the rights of the public over this land had never been defined, and he doubted whether they were capable of definition. On the true construction of the section he was not prepared to hold that rights of this kind could not be affected or destroyed, provided that the new purposes for which the land were to be used were approved by the Ministry of Health. In his opinion the approval of the Ministry of Health under section 95 had authorized the Corporation to use the land for purposes so approved. The result was that the action failed and he dismissed it, awarding the Corporation the costs of the action, except in so far as they had been increased by the issue as to user of the land by the public.

COMPETITION AWARDS

ROYAL NATIONAL EISTEDDFOD OF WALES

At the Royal National Eisteddfod of Wales, held at Llanelly last week, the following prizes were awarded in the Architecture Section. The assessor was Mr. Percy Thomas, F.R.I.B.A.:

(I.) Design for a town hall. Prize, £50. 1st, F. Keith Aitken; 2nd, J. W. Bishop.

(II.) Design for an omnibus station. Prize, £25. 1st, D. D. Harrison; 2nd, W. Sirrell.

(III.) Design for workmen's cottages. Prize, £25. 1st, S. G. Roberts; 2nd, L. F. Richards.

(IV.) Measured Drawings Prizes. 1st, D. M. Jones (£15 15s.); 2nd, L. F. Richards (£5 5s.).

Mr. T. Alwyn Lloyd, of Cardiff, president of the South Wales Institute of Architects, writing in *The Western Mail*, said:

In previous years the work at the Eisteddfod has often been of a poor standard and hardly worthy of a national competition. Whatever the cause of these unsatisfactory results there seems no doubt that at Llanelly a remarkable advance took place, both in regard to the quantity and the quality of the work submitted in the architecture section.

Four subjects were set, three of these being designs for a provincial town-hall, for a central motor 'bus station, and for a pair of workers' cottages. The other subject was a set of measured drawings of architecture.

Mr. Percy Thomas, in his adjudication of the 191 competitors' designs in the four subjects, paid a high tribute to their work and the skill shown by them in planning and elevational treatment. He said that the general high standard indicated that our young architects were producing work of which any country could be proud.

If, as one hopes will be the case, organizers of future Eisteddfod competitions will profit by the example of Llanelly and offer adequate rewards for carefully framed architectural programmes, there is no reason why architecture should not take her rightful place in Welsh life instead of being relegated to the position of "scullery maid," which has been so usual in the past!

OBITUARY

HOWARD JOSELAND: 1860–1930

We regret to record the death of Mr. Howard Joseland, F.R.I.B.A., who passed away in a Sydney nursing home early this month.

At an early age he left Worcester and was articled to a firm of London architects, but, not being of robust health, he emigrated to Australia, and finally settled in Sydney, where he founded the firm of Joseland and Gilling. He was responsible for the design of many public buildings in Sydney. Mr. Joseland was seventy years of age.

TRADE NOTES

At the twenty-first annual general meeting of Williams and Williams, Ltd., held at Reliance Works, Chester, on Wednesday last, Sir Henry Penson, chairman, stated that contracts for British metal window frames had recently been secured from New York, Montreal, Stockholm, Alexandria, Rangoon and Perth, Australia. He further stated that orders placed during the past year constituted a new record for the company; also, additions to buildings and plant during the year amounted to more than £23,000, which would enable them to deal with the increased output they were confidently expecting.

*

The Liverpool Corporation has just placed the contract for the equipment of their new abattoir, which is to be erected at Stanley, with Messrs. J. and F. Howard, Ltd., of Bedford, one of the associated firms of Agricultural and General Engineers, Ltd. This abattoir, which, it is claimed, will be the biggest municipal undertaking of its kind in the world, will have a capacity for dealing with no less than 1,000 cattle, 900 calves, 7,500 sheep and 2,000 pigs—11,400 animals a day. It is being built and equipped from the designs of Mr. T. Laurie Price, in consultation with Mr. Albert D. Jenkins, F.S.I. Other contracts of a similar nature which have been secured during the last three years by Messrs. Howard, against U.S. competition, include the equipment of the new works for Bovril, Ltd., in the Argentine; the reconditioning of the Smithfield and Argentine Meat Company's plant in the Argentine; the equipment of the Argentine Co-operative Farmers' works at Entre Rios; and five sheep abattoirs in Iceland.

*

In his report to the shareholders of Allied Cement Co., Ltd., at their annual meeting on July 31, the chairman, Mr. Oliver J. S. Piper, referred to the increased competition from foreign cement, pointing out that, while foreign cement is cheaper to purchase than British cement, the British buyer is no longer able to save the difference, since he must, apart from the question of quality, pay in addition a sum to the British workman for not making it, in the shape of the purchaser's contribution to the cost of unemployment itself. If these facts were better appreciated by municipalities and contractors who are buying foreign goods because they appear to be cheaper, it would be of advantage to the cement industry of this country.

*

Messrs. W. H. Gaze and Sons, Ltd., have secured the following contracts: Cricklewood Synagogue, Messrs. Burnett and Eprile, architects; new science block for Haberdashers' Aske's School for Boys, West Hampstead, Mr. Noel D. Sheffield, architect; Midland Bank, Tottenham Court Road, W.1, Messrs. Whinney, Son and Austen Hall, architects; new premises for Messrs. Montague Burton at Walthamstow, Messrs. Harry Wilson, architects; erection of dwellings at Wandsworth for the London County Council; picture theatre, Kingston-on-Thames, Mr. L. H. Kemp, architect.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

The Capitol Cinema, Winchmore Hill (pages 259–261). General contractor, L. F. Richardson. Consulting engineer, S. W. Budd. Sub-contractors: Edward Wood & Co., Ltd., structural steelwork; The London Plenum Heating Co., heating and ventilation; Sedgley and Edgley, electric installation; F. H. Pride, electric fittings; Plaster Decoration Co., Ltd., decorations; George Pixton & Co., Ltd., seating, carpets, and stage draperies; Wainwright and Waring, Ltd., leaded lights; Enfield Stone Co., Ltd., mosaic flooring; Thomas Cook, Ltd., ceramic decorations; General Tile Co., Ltd., wall tiling; Cement Marketing Co., Ltd., white cement; Arthur Lyon & Co., electric clocks; Sturtevant Engineering Co., Ltd., vacuum cleaners; Compton Organ Co., Ltd., organ; Automaticket, Ltd., ticket machines; Independent Sprinklers, Ltd., fire equipment; Frank J. Brockliss, Ltd., bio projectors; Frank Burkitt, fire curtain, etc.; Alfred Goslett & Co., Ltd., sanitary fittings.

Warehouse and showrooms, 3-4 Houndsditch, E.1 (page 276). General contractor, F. and H. F. Higgs, Ltd., who were also responsible for the joinery. Sub-contractors: Ragusa Asphalte Paving Co., Ltd., asphalt; F. J. Barnes, Ltd., stone; Redpath Brown & Co., Ltd., structural steel; Caxton Floors, Ltd., fireproof floor construction; Hollis Bros. & Co., Ltd., wood-block flooring; J. H. Nicholson & Co., Ltd., central heating; Tyler and Freeman, electric wiring; Automatic Sprinkler Co., sprinklers; Crittall Manufacturing Co., Ltd., casements; Turner Hall & Co., cellulose spraying; Hart, Son, Peard & Co., Ltd., ornamental metalwork; Penrose Lifts, Ltd. passenger and goods lifts.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full published specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

23204. Dischinger, F., and Finsterwalder, U., and Zeiss, C. (Firm of). Roofs of reinforced concrete. August 1.

23347. Legat, A. W. Method of finishing concrete surfaces. August 2.

22636. Venning, F. G. Building construction. July 28.

SPECIFICATION PUBLISHED

318551. Maus, K. Producing hollow bricks or building-stones.

ANNOUNCEMENTS

Mr. Septimus Warwick, F.R.I.B.A., has removed his offices to Nos. 2, 3 and 4 Cockspur Street, London, S.W.1. Telephone Number: Gerrard 2143.

Mr. Matthew J. Dawson, F.R.I.B.A. (lecturer, University of London), has removed from 11 New Court, Lincoln's Inn, W.C.2, to 88 Gower Street, W.C.1. Telephone Number: Museum 4671.

Messrs. J. M. Dent and Sons, Ltd., announce, with regret, that Mr. D. S. MacColl has resigned the editorship of *Artwork*. Mr. Randolph Schwabe, Slade Professor Elect at University College, London, is his successor.

A booklet summarizing and explaining the new motoring laws has been issued by the Automobile Association, and is now available to every motorist. Copies are obtainable on application to the Secretary, the Automobile Association, Fanum House, New Coventry Street, London, W.1, or to any of the A.A. branch offices (gratis).

SOCIETIES AND INSTITUTIONS

R.I.B.A. EXAMINATIONS

THE questions set at the R.I.B.A. intermediate, final and special examinations held in May, June and July, 1930, have been published, and are on sale at the Royal Institute, price 1s. (exclusive of postage).

R.I.B.A. Intermediate Examination.—The following notice has been issued by the R.I.B.A.: "The R.I.B.A. Intermediate Examination to be held in November, 1930, will take place on the following dates: November 21, 22, 24, 25, and 27, instead of from November 7 to 13 as previously announced. The closing date for the receipt of applications for admission to the examination is October 7."

R.I.B.A. Examination Results.—The final examination qualifying for candidature as Associates of the R.I.B.A. was held in London and Edinburgh from July 9 to 17, 1930. Of the 99 candidates examined, 46 passed (8 in Part 1 only) and 53 were relegated. The successful candidates are as follows:

Billiards, H.
Bintley, L.
Bowden, F. I.
Burrington, T.
Cooper, R. W. G.
Corlett, W. S.
Couldrick, H. C.
Davis, E. E.
Doctor, B. E. (Part 1 only).
Ellis, H. H.
Farmer, H. C.
Ford, G.
Ford, H. H.
Harris, K. W. F.
Hartley, J. S. (Distinction in Thesis).
Henderson, P. P.
Hinton, R. C. H.
Hurden, S. A.
Johnston, A. C.
Jolley, V. A.
Kemp, W. C.
Kendrick, A. W. R. (Part 1 only).
Kingsford, G. M.
Lacoste, G. A. C.
Livingstone, A. H. (Part 1 only).
Lumley, D. F.
Marshall, H. B.
Maybury, M.
Mellor, F.
Mileson, H. (Part 1 only).
Pilichowski, A. V. (Part 1 only).
Polson, F. M.
Rea, A. J.
Schultz, I.
Sherwin, R. W. (Part 1 only).
Smith, A.
Smith, J. J.
Soper, S. F. E.
Thompson, E.
Tolson, J. R.
Twigg, W. L.
Underhill, A. (Part 1 only).
Vaughan, O.
Watson, L. K.
Williams, S.
Writer, A. (Part 1 only).

The Special Examination.—The special examination qualifying for candidature as Associates of the R.I.B.A. was held in London from July 9 to 15. Of the 22 candidates examined, 11 passed (1 in Part 1 only) and 11 were relegated. The successful candidates are as follows:

Elleray, F. R.
Harris, R. O.
Lloyd, W. T.
Peel, A.
Pertee, W. C.
Rowe, G. F.
Tomkins, C. J.
Waugh, H. L.
Webb, F. H. H.
Wingate, W. H.
Worrall, W. (Part 1 only).

The Examination in Professional Practice for students of Schools of Architecture recognized for exemption from the R.I.B.A. Final Examination.—The examination was held in London and Edinburgh on July 15 to 17, 1930. Of the 63 candidates examined, 50 passed and 13 were relegated. The successful candidates are as follows:

Aitken, F. K.
Anderson, W. G. D.
Asghâr, S. A.
Bevan, C. S.
Bishop, J. W.
Bower, S. E. D.
Brodie, M. B.
Budgen, P. G.
Burles, D. R.
Chackett, L. A.
Challen, M. C.
Coulter, H. G.
Cowie, M. J. H.
Cruickshank, G. L.
Duggan, D. M.
Folkes, J. H.
Gardner, E. G.
Gifford, R. C.
Good, N. D.
Grant, F. C. G.
Hall, A. E.
Harland, P. J. B.
Henniker, R. F.
Innes, D. W.
Ironside, W. D.
Jackson, G. H.
Jackson, H.
King, L. E.
Luke, H. S.
Monro, G. J.
Nightingale, D. E.
Nisbet, J. V.
Noad, R. M.
Osburn, W. J. A.
Parr, J. W.
Paterson, H. N.
Playne, E.
Reith, W. J.
Richards, L. F.
Riddell, J. R.
Rose, C. A.
Sein, M. T.
Selby, R. B. J.
Shaw, M. M.
Stephen, N.
Stewart, J. A.
Thatcher, C. A. E.
Walker, W. C.
Wilson, J. C.
Yorke, F. R. S.

RHODESIAN ARCHITECTS FORM AN INSTITUTE

A number of Bulawayo architects recently took advantage of the Rhodes and Founder's Day holidays to travel to Salisbury, where they met the local architects at a general meeting, and elected the first council of the Institute of Southern Rhodesian Architects, a body corporate under the Architects (Private) Act of 1929.

The result of the ballot was as follows: President: Mr. D. MacGillivray, M.L.A., of Bulawayo; Vice-President: Mr. F. A. Jaffray, L.R.I.B.A., M.I.A., of Salisbury; Hon. Secretary and Registrar of the Institute, Mr. E. Pallett, F.I.A.A.; Members of the Council: Messrs. W. D'Arcy Cathcart, F.R.I.B.A., S. A. Cowper, M.C., F.I.A.A., J. R. Hobson, M.C., F.R.I.B.A., J. D. Robertson, L.R.I.B.A., and W. J. Whitesides, A.R.I.B.A.

The new council will shortly take over from the Inaugural Board appointed by the Government, and the Institute will then manage its affairs under the Architects Act and the regulations drawn up by the Inaugural Board.

On July 14 the architects entertained the Colonial Secretary (Mr. W. M. Leggate) and members of the Inaugural Board to dinner at the Grand Hotel.

The toast of "The King," proposed by the Institute's new president and heartily responded to, was followed by "The Government," proposed by Mr. Whitesides, who explained how the Government had sympathetically taken up the architects' request for the registration of architects and had passed the Architects (Private) Act, 1929. He coupled with the toast the name of the Colonial Secretary, who was closely associated with the administration of the Act.

Major R. H. Everett, C.B.E., chairman of the Board, in response to the toast of "The Inaugural Board," proposed by Mr. J. Cope Christie, F.R.I.B.A., commended the rather unusual action of the architectural profession of Rhodesia who, when drafting their Bill, made the provision that the regulations which would govern them under their Act should be drawn up by a board selected by the Government, the majority of whom need not be members of the architectural profession. Thus public interests were safeguarded as well as the interests of the profession.

Other toasts and responses were made by Messrs. W. M. Leggate, J. R. Hobson, M.C., F.R.I.B.A., D. MacGillivray, F. A. Jaffray, W. Cathcart, and Captain W. E. Thomas, M.C., B.A.

COMPETITIONS OPEN

August 30.—The Carlisle Corporation invites British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. The site was previously occupied by the Prison. The total length of the frontage is approximately 358 ft. Assessor: Francis Jones, F.R.I.B.A. Premiums: £300, £200, and £100. Particulars of the competition, etc., may be obtained from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s. Latest date for submission of designs, August 30.

September 1.—The Bangor (Co. Down) Borough Council invites architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor: Professor Patrick Abercrombie, F.R.I.B.A. Premiums: £150 and £50 for first and second places, respectively. Copies of the conditions and plans will be forwarded on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs: September 1.

September 30.—The Isle of Man Education Authority invited architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invite architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor: A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs: October 20.

October 30.—The General Building Syndicate, Ltd., invite architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums: £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs: October 30, 1930.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

No date.—The Leicester Corporation propose to invite local architects to submit competitive designs for a library, to be erected at West Humberstone. Assessor: Hugh Gold, F.R.I.B.A. Premiums: £75, £50, and £25, for first, second and third prizes, respectively. (Full particulars are not yet available.)

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene of the foundation: "Foundation Hospital of Zagreb." 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

The Watford Corporation has arranged with Mr E. Vincent Harris, F.R.I.B.A., the assessor, the details of the competition for the designs of the proposed new municipal buildings. The estimated expenditure is £200,000.

In connection with the proposed new municipal buildings the Southwark B.C. recommends the appointment of an assessor to report on a scheme for competitive designs for a new town hall, central library, museum and public hall, on the existing and adjoining sites. The estimated cost of the scheme is £317,000.

THE ARCHITECTS' DIARY

WEDNESDAY, AUGUST 20

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Morley College, Westminster Bridge Road, S.E.1. **11.30 a.m.**

ROYAL SOCIETY OF ARTS. At the Imperial Institute, Exhibition Road, South Kensington, S.W.7. Exhibition of designs submitted in the R.S.A. Competition of Industrial Designs. Until August 31. 10 a.m. to 5 p.m. (Sundays 2.30 to 6 p.m.). 10 a.m.

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. 10 a.m.

THURSDAY, AUGUST 21

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. "Architecture." By Miss M. Chamot. **3 p.m.**

FRIDAY, AUGUST 22

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Cornwall House, Stamford Street, Waterloo Road, S.E.1. An official demonstration will be given of the automatic telephones. **3 p.m.**

SATURDAY, AUGUST 23

Sunrise, 5.56 a.m. Sunset, 8.8 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Ironwork." 12 noon. "Ecclesiastical Metalwork." 3 p.m. Both lectures by L. O. Faraker. **12 noon.**

MONDAY, AUGUST 25

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass." By T. F. Wilson, F.R.S.A.I. **3 p.m.**

TUESDAY, AUGUST 26

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Harrington House, Craig's Court, Charing Cross, S.W.1. **3 p.m.**

SCIENCE MUSEUM, Exhibition Road, South Kensington, S.W.7. "Electricity." By S. H. Groom, B.A. **3 p.m.**

SATURDAY, AUGUST 30

Sunrise, 6.8 a.m. Sunset, 7.53 p.m.

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS, 26 Buckingham Gate, S.W.1. Fourteen-day Tour to Madrid, returning to London on September 13.

CARLISLE STREET FACADE COMPETITION. Latest date for submission of designs.

MONDAY, SEPTEMBER 1

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. September 1 to September 6.

BANGOR SEA FRONT COMPETITION. Latest date for submission of designs.

TUESDAY, SEPTEMBER 2

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "The Composition, Mixing, Methods of Application of Concrete and Reinforced Concrete, as used in the Yards, and the Control of Same." By T. R. Grigson, M.INST.C.E. "Some Notes on the Composition, Mixing and Application of Concrete in Engineering Works." By C. J. Jackaman, A.M.INST.C.E.

WEDNESDAY, SEPTEMBER 3

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Pieces in Concrete Piles." By M. J. C. McCarthy, A.M.INST.C.E., A.M.MECH.E. "Stresses in Dams." By S. D. Carothers. "A Study of Plain and Reinforced Concrete Retaining Walls." By Ewart S. Andrews, B.SC., M.INST.C.E. "Reinforced Concrete in Great Britain." By A. Kirkwood Dodds, M.C., M.SOC.C.E. (FRANCE). "Reinforced Concrete in Engineering: Representative Examples of British Practice." By M. Gerard, M.SOC.C.E. (FRANCE).

THURSDAY, SEPTEMBER 4

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Work of the Building Research Station on Small Movements in Concrete." By Dr. W. H. Glanville, B.SC., A.M.INST.C.E. "The Effect of Temperature on Flat Arches Constructed of Reinforced Concrete." By C. S. Gray, B.SC., A.M.INST.C.E. "Temperature and Cement." By Dr. Oscar Faber, O.B.E., M.INST.C.E.

SATURDAY, SEPTEMBER 6

Sunrise, 6.19 a.m. Sunset, 7.37 p.m.

XII. INTERNATIONAL CONGRESS OF ARCHITECTS. In Budapest. September 6 to 13. Opening of International Exhibition of Architectural Designs in the Picture Gallery of the Hungarian Scientific Academy. 10 a.m.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. South-Western District Meeting, to be held at Bath.

SIXTH INTERNATIONAL ROAD CONGRESS, to be held at Washington. Until September 11.

TUESDAY, SEPTEMBER 9

ASSOCIATION OF PUBLIC LIGHTING ENGINEERS. Annual Meeting and Conference, to be held at Leicester. Until October 11.

THURSDAY, SEPTEMBER 11

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Furniture." 12 noon. "Italian Decoration." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

FRIDAY, SEPTEMBER 12

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North-Western District Meeting, to be held at Runcorn.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Furniture." By Miss M. Chamot. 12 noon. "Gothic Woodwork." By T. F. Wilson, F.R.S.A.I. 3 p.m. **12 noon.**

SATURDAY, SEPTEMBER 13

Sunrise, 6.30 a.m. Sunset, 7.21 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

WEDNESDAY, SEPTEMBER 17

INTERNATIONAL BUILDING TRADES EXHIBITION, Olympia. Until October 1.

BRITISH GLASS CONVENTION. At Buxton. Until September 20. Morning: Meeting of the Council of the Society of Glass Technology. Afternoon: General Meeting of the Society of Glass Technology Evening: Informal Presidential Reception of members and their friends at the Palace Hotel.

THURSDAY, SEPTEMBER 18

BRITISH GLASS CONVENTION. At Buxton. Morning: Official welcome by the Mayor and Corporation of Buxton, at the Peak Buildings. Presidential Address. Discussion on "Elimination of Waste in the Glass Industry," to be opened by Dr. Miles. Official luncheon. Evening: Mayoral Reception at the Palace Hotel.

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition in the Galleries of Drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.). Until September 30. **10 a.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussions on "Marketing Methods in the Glass Industry" and "Public Propaganda in the Glass Industry," to be opened by Sir Francis Goodenough, C.B.E., and H. Gordon Selfridge, respectively. Afternoon: Golf Competition for championship of the Glass Industry. Evening: Banquet at the Palace Hotel.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Meeting to be held at Southampton.

SATURDAY, SEPTEMBER 20

Sunrise, 6.41 a.m. Sunset, 7.5 p.m.

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussion on "The Convention—Present and Future," to be opened by Mr. Walter Chance, M.A., J.P.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass (1)." 12 noon. "Stained Glass (2)." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North Wales District Meeting, to be held at Bangor.

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS. London and Home Counties Branch. Dinner and Dance to be held at the Quadrant Restaurant, Regent Street, W. Tickets, 7s. 6d.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Yorkshire District Meeting, to be held at Hipperholme.

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Continental Glass," 12 noon. "English Domestic Glass." 3 p.m. Both lectures by Miss B. Goldsmid. **12 noon.**

TUESDAY, SEPTEMBER 30

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. "The Making of a Cathedral—Liverpool." By E. W. Harvey-Piper. (Lantern Illustrations.) **7 p.m.**

ISLE OF MAN GRAMMAR SCHOOL COMPETITION. Latest date for submission of designs.

FRIDAY, OCTOBER 3

TOWN PLANNING INSTITUTE. Twelfth Annual Country Meeting, to be held at Leicester. Until October 5. Full particulars are not yet available.

SATURDAY, OCTOBER 4

Sunrise, 7.4 a.m. Sunset, 6.53 p.m.

TUESDAY, OCTOBER 7

R.I.B.A., 9 Conduit Street, W.1. Closing date for applications for admission to the Intermediate Examination.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_2	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_3	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_3	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_3	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_3	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 8½	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_3	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_3	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_3	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_3	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_3	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_3	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_3	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_3	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_3	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_3	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 8½	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_3	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_3	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_2	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A_1	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_3	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_3	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 10 0
Pit gravel, per yd.	0 15 0
Pit sand, per yd.	0 12 6
Washed sand, per yd.	0 13 0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2 8 0
Lias lime, per ton	2 0 0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0 15 0
3-ton motor lorry	3	15	0	*Steam roller*	4 5 0
Steam lorry, 5-ton	4	0	0	*Water cart*	1 5 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.
RETURN, fill, and ram, ordinary earth, per yd. £0 1 6
SPREAD and level, including wheeling, per yd. 0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6
TRIMMING earth to slopes, per yd. sup. 0 0 6
HACKING up old grano. or similar paving, per yd. sup. . . . 0 1 3
PLANKING to excavations, per ft. sup. 0 0 5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.
IF left in, add to above prices, per ft. cube 0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1
DO. 6 in. thick, per yd. sup. . . 0 2 10
PUDDLING, per yd. cube 1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6
DO. 6-2-1, per yd. cube 1 12 6
DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.
LIAS-LIME CONCRETE, per yd. cube . £1 14 0
BREEZE CONCRETE, per yd. cube . 1 7 0
DO. in lintels, etc., per ft. cube . 0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9
FINE concrete benching to bottom of manholes, per ft. cube . . . 0 3 0
FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0 0 10
DO. *6 in., per ft.*	0 1 3
DO. *9 in., per ft.*	0 2 3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 5 6
DO. *6 in., per yd.*	0 8 0
Portland cement and sand, see "Excavator" above.	
Leadwool, per cwt.	£2 0 0
Gaskin, per lb.	0 0 4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4 5 6
Flettons, per M.	2 12 6
White facing bricks, per M.	5 0 0
Multi-coloured facings, per M.	7 7 9
Best red facings, per M.	7 7 9
Rubbers, 9¾ in., per M.	12 0 6
Staffordshire blue, per M.	9 5 0
Firebricks, 2½ in., per M.	9 5 0
Glazed salt, white, and ivory stretchers, per M.	21 10 0
DO. *headers, per M.*	20 10 0
Colours, extra, per M.	5 10 0
Seconds, less, per M.	1 0 0
Cement and sand, see "Excavator" above.	
Lime, grey stone, per ton	£2 11 6
Mixed lime mortar, per yd.	1 6 0
Dampcourse, in rolls of 4½ in., per roll	0 2 6
DO. *9 in., per roll*	0 4 9
DO. *14 in., per roll*	0 7 6
DO. *18 in., per roll*	0 9 6

BRICKWORK in stone lime mortar, Flettons, or equal, per rod . . 30 0 0
DO. in cement do., per rod . . 32 10 0
DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup. . . £0 1 0
BEDDING plates in cement mortar, per ft. run 0 0 3
BEDDING window or door frames, per ft. run 0 0 3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run 0 0 2
CUTTING do. in old walls in cement, per ft. run 0 0 4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup. 0 0 7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run 0 3 6
DO. 14 ft. by 9 in. do., per ft. run . 0 6 0
FLAUNCHING chimney pots, each . 0 2 0
CUTTING and pinning ends of timbers, etc., in cement 0 1 0
FACINGS, fair, per ft. sup. extra . 0 0 3
DO. picked stocks, per ft. sup. extra 0 0 7
DO. red rubbers, gauged and set in putty, per ft. sup. extra . . 0 4 9
DO. in salt white or ivory glazed, per ft. sup. extra 0 5 6
TUCK pointing, per ft. sup. extra . 0 0 10
WEATHER pointing, do. do. . . . 0 0 3
TILE creasing with cement fillet each side, per ft. run 0 0 6
GRANOLITHIC PAVING, 1 in., per yd. sup. 0 5 0
DO. 1½ in., per yd. sup. 0 6 0
DO. 2 in., per yd. sup. 0 7 0
If coloured with red oxide, per yd. sup. 0 1 0
If finished with carborundum, per yd. sup. 0 0 6
If in small quantities, in finishing to steps, etc., per ft. sup. . . . 0 1 4
Jointing new grano. paving to old, per ft. run 0 0 4
Extra for dishing grano. or cement paving around gullies, each . . 0 1 6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup. 0 0 7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup. 0 8 0
DO. vertical, per yd. sup. . . . 0 11 0
SLATE DAMP COURSE, per ft. sup. . 0 0 10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. . . 0 8 6
DO. SKIRTING, 6 in. 0 0 11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. . . 0 5 3
DO. DO. 3 in. 0 6 6
BREEZE fixing bricks, extra for each . 0 0 3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER 1s. 4½d. *per hour.*

Portland Stone:	
Whitbed, per ft. cube	£0 4 6
Basebed, per ft. cube	0 4 9
Bath stone, per ft. cube	0 3 0
Usual trade extras for large blocks.	
York paving, av. 2½ in., per yd. super	0 11 0
York templates sawn, per ft. cube	0 7 6
Slate shelves, rubbed, 1 in., per ft. sup.	0 2 6
Cement and sand, see "Excavator," etc., above.	

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.
PLAIN face Portland basis, per ft. sup. £0 2 8
DO. circular, per ft. sup. . . . 0 4 0
SUNK FACE, per ft. sup. 0 3 9
DO. circular, per ft. sup. . . . 0 4 10
JOINTS, arch, per ft. sup. . . . 0 2 6
DO. sunk, per ft. sup. 0 2 7
DO. DO. circular, per ft. sup. . . 0 4 6
CIRCULAR-CIRCULAR work, per ft. sup. 1 2 0
PLAIN MOULDING, straight, per inch of girth, per ft. run . . . 0 1 1
DO. circular, do., per ft. run . . 0 1 4
HALF SAWING, per ft. sup. . . . 0 1 0
Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.
SETTING 1 in. slate shelving in cement, per ft. sup. £0 0 6
RUBBED round nosing to do., per ft. lin. £0 0
YORK STEPS, rubbed T. & R., ft. cub. fixed 1 7 6
YORK SILLS, W. & T., ft. cub. fixed . 1 10 0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup. 0 1 3
DO. 2½ in. thick, per ft. sup. . . 0 1 6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies		£14 0 0
Countess		23 0 0
Duchess		32 10 0
Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms, per ton	8 3 9
Grey-green do., per ton	7 3 9
Green peggies, 12 in. to 8 in. long, per ton	5 13 9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0 0 6
Clips, copper, per lb.	0 2 0
Nails, compo, per cwt.	1 6 0
Nails, copper, per lb.	0 2 2
Cement and sand, see "Excavator," etc., above.	
Hand-made tiles, per M.	£5 18 0
Machine-made tiles, per M.	5 8 0
Westmorland slates, large, per ton	9 9 0
DO. *Peggies, per ton*	7 5 0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4 0 0
Countess, per square	4 5 0
Duchess, per square	4 10 0

WESTMORLAND, in diminishing courses, per square 6 5 0
CORNISH DO., per square 6 3 0
Add, if vertical, per square approx. . 0 13 0
Add, if with copper nails, per square approx. 0 2 6
Double course at eaves, per ft. approx. 0 1 0
SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0

Green randoms	6 7 0
Grey-green do.	5 9 0
Green peggies, 12 in. to 8 in. long	4 13 6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6
DO., machine-made do., per square . 3 7 6
Vertical Tiling, including pointing, add 18s. 0d. per square.
FIXING lead soakers, per dozen . . £0 0 10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square . . . 0 10 0
LABOUR only in laying slates, but including nails, per square . . 1 0 0
See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22 0 0
11 × 4, per std.	30 0 0

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq.	£1 4 6
DO., *T. and G., 1 in., per sq.*	1 4 6
Planed boards, 1 in. × 11 in., per std.	30 0 0
Wainscot oak, per ft. sup. of 1 in.	0 1 6
Mahogany, Honduras, per ft. sup. of 1 in.	0 1 4
DO., *Cuba, per ft. sup. of 1 in.*	0 2 6
DO., *African, per ft. sup.*	0 1 3
Teak, per ft. sup. of 1 in.	0 1 2
DO., *ft. cube*	0 14 0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube . . 0 4 6
DO. framed in floors, roofs, etc., per ft. cube 0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube . . . 0 8 6
PITCH PINE, add 33⅓ per cent.
FIXING only boarding in floors, roofs, etc., per sq. 0 13 6
SARKING FELT laid, 1-ply, per yd. . 0 1 6
DO., 3-ply, per yd. 0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq. . 2 0 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run . 0 0 4½
DO. 9 in. wide and over, per ft. sup. . 0 1 2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1⅜ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8¾*d. per hour ;* MATE, *do.*, 1*s.* 3½*d. per hour ;* ERECTOR, 1*s.* 8¾*d. per hour ;* FITTER, 1*s.* 8¾*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour ;* MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO. *fine, per lb.*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in., per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ⅝ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7¼
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6¾
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1

Small sizes slightly less (under 3 ft. sup.).

Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.

LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0

Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* FRENCH POLISHER, 1*s.* 8½*d. per hour ;* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.

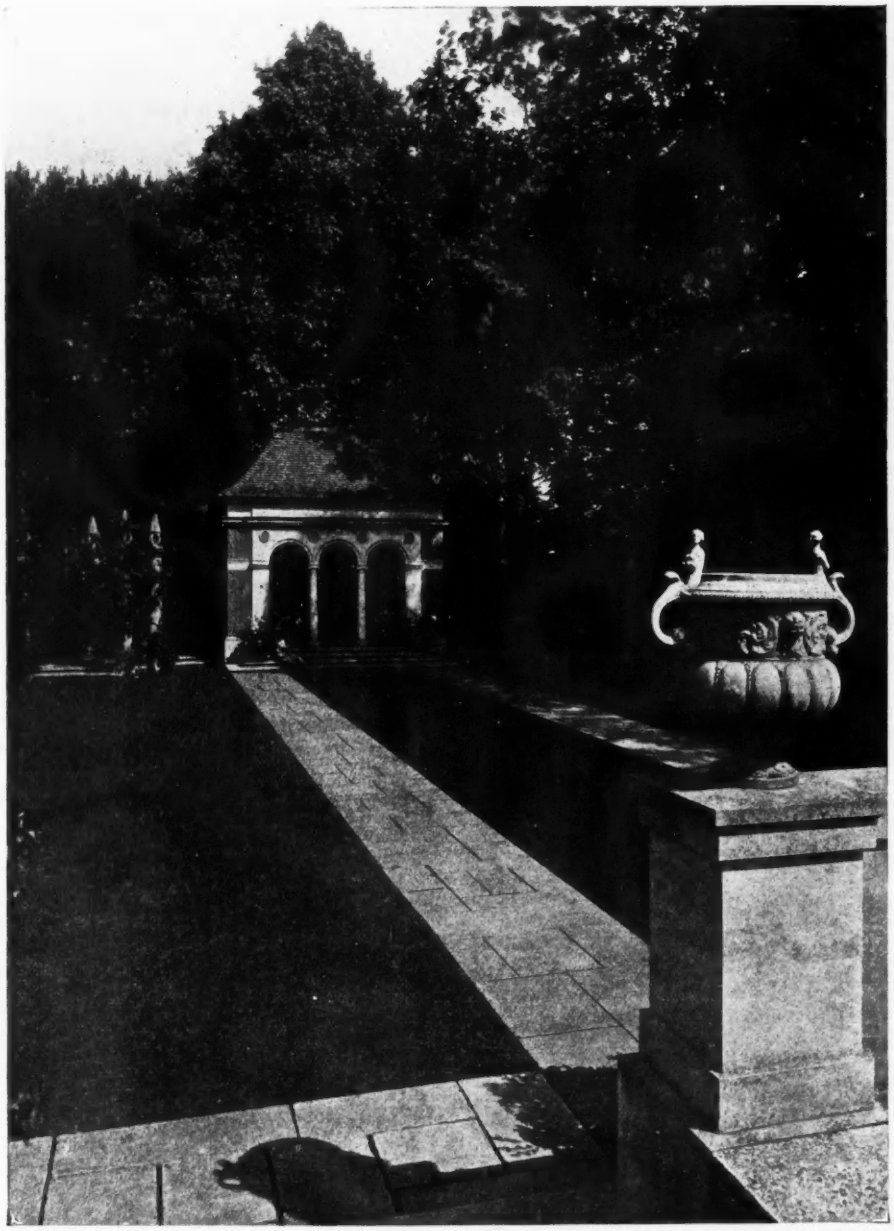
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



GARDEN PAVILION AT MELCHET COURT, NEAR ROMSEY, HAMPSHIRE. DESIGNED BY DEANE AND BRADDELL

THE arch and column motive employed for the sides of the little gazebo, shown in the photograph in its setting at the end of a stone-edged pool, is repeated at each end, while the corners of the building are built of 2-inch Roman tiles with wide flush joints. Hopton Wood stone has been used for the columns, arches, filling, cornice and blocking course, while the caps and bases were carved in marble by Mr. Esmond Burton. The roof is of plain hand-made tiles, which are laid at a steeper pitch from the ends than from the longer sides to give a little length to the ridge and so avoid a pyramidal appearance. Internally, a stone cornice has again been employed, in conjunction with a plaster ceiling, wall enrichments and niches in all four corners. The flooring and treads to the shallow steps leading down to the pool are of stone, and the risers are filled in with tiles.

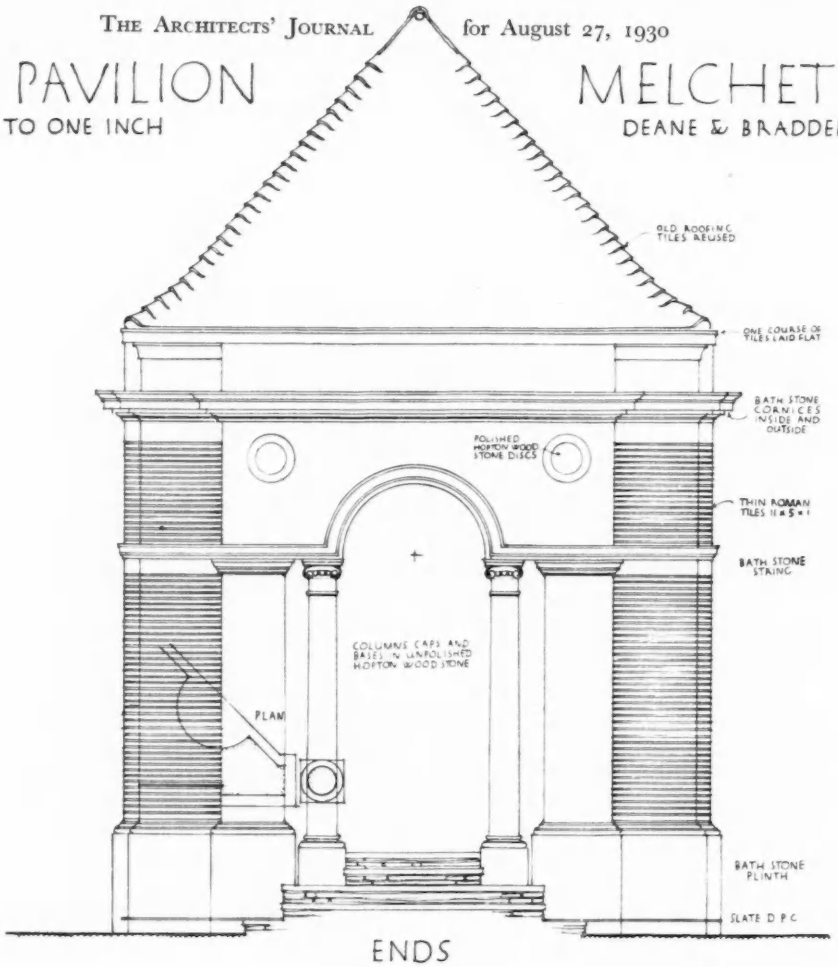
The drawing overleaf may be read with an ordinary architects' scale ($\frac{1}{4}$ in. = 1 ft.)

GARDEN PAVILION

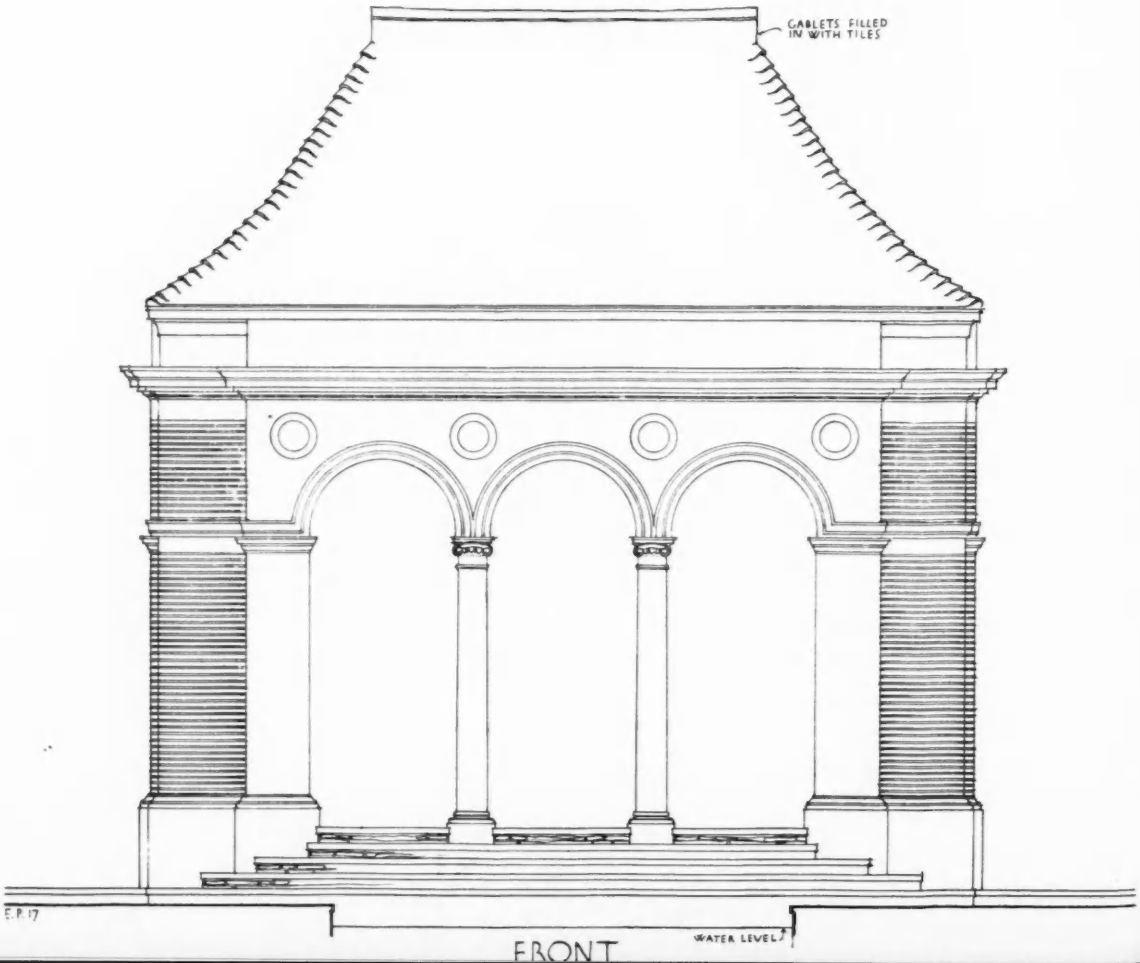
SCALE FOUR FEET TO ONE INCH

MELCHET COURT

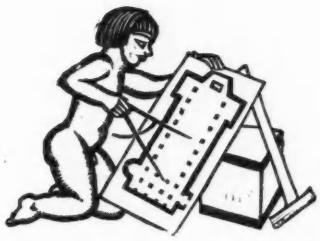
DEANE & BRADDELL ARCHITECTS



ENDS



FRONT



WEDNESDAY, AUGUST 27, 1930

1849—1930

The art of building is one of the great things in the State . . . I may unduly magnify my calling, but I know nothing greater than the honest old craft of building.

—W. R. LETHABY

LORD GORELL, the other day, told a delicious story which deserved to be repeated more widely than it was. He recalled a visit paid in the year 1900 by friends to an old lady of eighty. The friends took with them a person who happened to be their guest at the time. This guest was an architect of some distinction, and the old lady treated him with old-world courtesy. A day or two later the friends called on the lady again, and as the name of their recent guest was mentioned they told her his profession. "An architect!" cried the old lady, with pained surprise, "and I shook hands with him." Shaking hands with an architect was something that wasn't done.

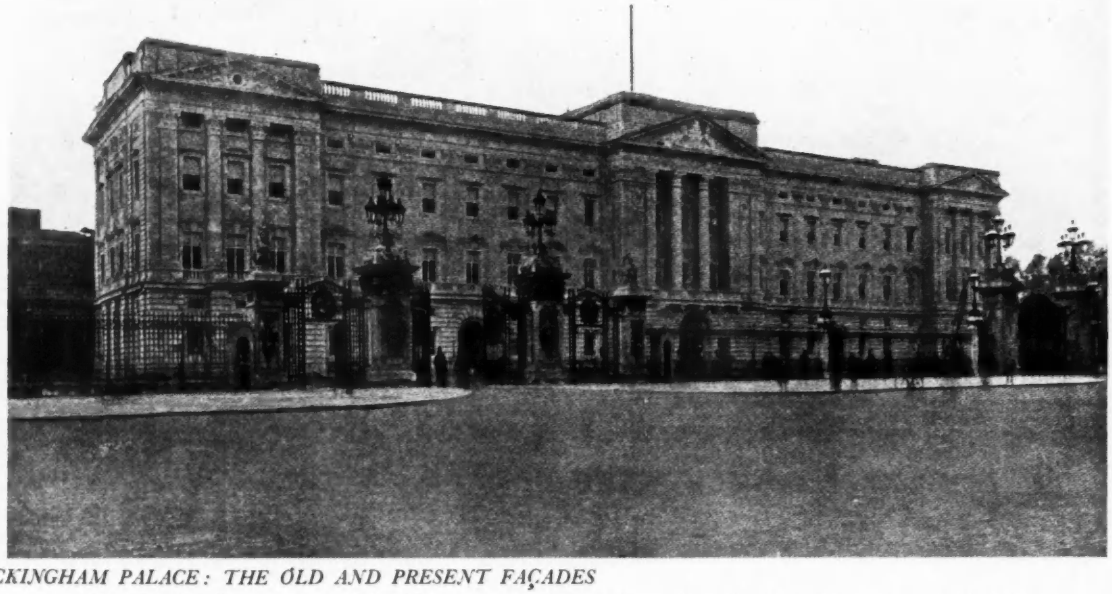
The old lady was genuinely horrified. She was born in 1820, Sir Aston Webb twenty-nine years later. In one generation the social position of the architect became what it is today. And if it is possible to associate one man's name with the change that has made it possible for the most exalted to shake hands with an architect and not commit a solecism thereby, then that man is Sir Aston Webb, who died on Thursday last. In losing Sir Aston Webb we have lost more than an architect, however distinguished, can ever be; more than the unchallenged head of our profession. We have lost the man who raised the craft of architecture to a level of authority and prestige among the country's servants, which would have appeared an impossible dream to Lord Gorell's old lady, and which may yet become but a memory unless we strain every nerve to maintain it in our time.

As was to be expected, the daily papers tried their hardest to be complimentary about "the majesty of the Admiralty Arch" and the noble pile of the Museum buildings at South Kensington. Looked at from the angle of our post-war beliefs and aspirations, these buildings supply little food for enthusiasm. Fortunately, there is no need to be enthusiastic about them as buildings. There are stories current about Sir Aston Webb which make him appear as one who thought highly of himself as an artist. For our part, we do not believe these reports to be true. There are more sorts of greatness than one, and architecture is a complex business indeed. Sir Aston Webb had achieved a greatness that was beyond all question when he was asked to succeed Sir Edward Poynter as President of the Royal Academy. It was a few months after the Armistice, and Sir Aston was in his seventieth year. His Presidency was not the beginning of a chapter, but the end. The greater part of his work was done between 1890, when he began the Dartmouth Naval College building, and 1913, when he put the new front on Buckingham Palace. It was during those years that he raised up architecture to a great and important position in the nation's affairs.

We live in an age today when the scale of human enterprise is growing steadily larger—more steadily, it is true, and more rapidly, in other countries than in ours, where individualist methods are still cherished in times of dire competitive stress. The large business, the trust and the amalgamation, these things are not welcomed, but they are here, and it is no use blinking their presence. Building enterprise, too, must grow larger accordingly. It did not escape the newspaper critics that the volume of Sir Aston Webb's practice and the size of his architectural staff were hardly commensurate with the pace and the scope of the personal artist's labours. They were not. There is more individuality (or so it seems to us today) in the buildings now being designed by a mere "official machine" like the Office of Works than in those designed by Sir Aston Webb. But would the Office of Works, would some of our larger private offices and partnerships today, be producing the work they do if Sir Aston Webb had not pointed the way to them?

It is impossible to say where we should have been today had he never lived, but it is certain that we should have been poorer, weaker and vastly less respected, and our influence in the world would have been correspondingly less. For much though the position of architecture in the world still leaves to be desired, it would have refused many a frightening task, and missed many a critical opportunity, had not the genius of Sir Aston Webb taught it to face and to master them.





BUCKINGHAM PALACE: THE OLD AND PRESENT FAÇADES

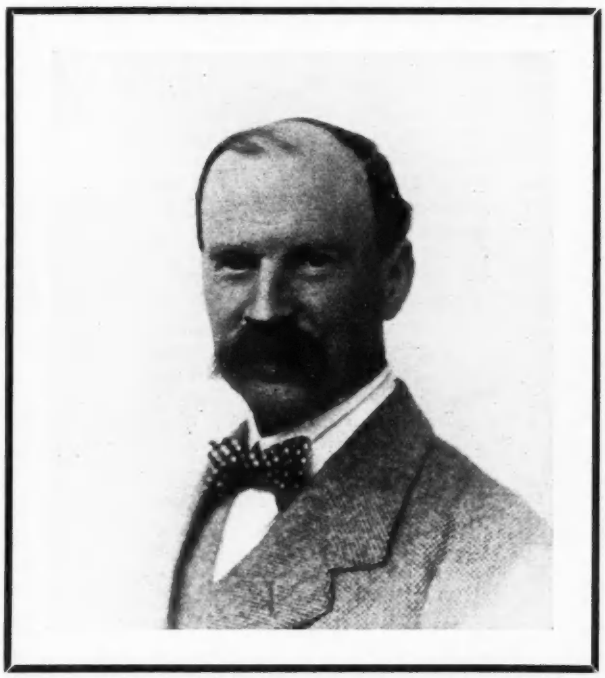
Sir Aston Webb's refronting of the Palace was characterized in our issue for November 5, 1913, in the following words: "There is a decidedly imposing air about it; it is, in fact, the best thing that Sir Aston Webb has ever done."

At the same time the opinion was advanced that it was the deplorably dirty condition into which Blore's old front, in Caen stone, painted, had been allowed to get, rather than the insipid design itself, that had brought it into disrepute.

The decision to refront was the natural sequel to the unveiling of the Queen Victoria Memorial, which was sculptured by Sir Thomas Brock, but architecturally was part of Sir Aston Webb's monumental scheme which earned him his knighthood. When the statue and fountain stood out, spick and span, it was clear that something would have to be done with the dingy Palace. The project was dear to the heart of Edward VII, and Sir Aston was at work on it as early as 1904. But the King died before it could be put into execution (incidentally, the upper photograph is believed to have been taken while his Majesty was lying dead in the Palace), and there were several revisions.

It was in August, 1913, that operations were commenced by the contractors, Messrs. Leslie and Co. Sir Aston anticipated that they would occupy two years, but the builders undertook to complete in thirteen weeks. And, by the end of October, all was finished and the scaffolding cleared away. On the average 350 men were employed by day and 180 during the night.

ASTON WEBB 1849—1930



The late Sir Aston Webb, G.C.V.O., C.B., PP.R.A., PP.R.I.B.A., etc., who died in London last week, in his 82nd year.

ASTON WEBB, who died in his sleep at his London residence in Hanover Terrace, early in the morning of Thursday last, August 21, was born in London on May 22, 1849, and was thus well into his eighty-second year. The son of the late Edward Webb, water-colour artist and engraver, he married, in 1876, Marian, youngest daughter of the late David Everett, F.R.C.S., of Worcester, who bore him two sons and a daughter. The surviving son, Maurice Everett Webb, himself a Vice-President of the R.I.B.A., was articled to his father, and had, of late years, undertaken more and more of the work of their partnership, after serving with distinction in the war with the Royal Engineers, winning the D.S.O. and the M.C. The other son he had the misfortune to lose in the course of hostilities.

Sir Aston was educated privately and, as a prelude to his long and distinguished career, was articled to Banks and Barry at the age of eighteen. Seven years later he set up in private practice, having won, in 1873, the Pugin studentship of the R.I.B.A., instituted to promote the study of medieval architecture in Great Britain and Ireland.

Thus, an early event seemed to mark out the whole path of life for him, for it brought him particular experiences that were destined to influence all his work. At this time, too, he exhibited drawings of Continental churches at the Royal Academy, and what he thus gave proof of having assimilated bore fruit when, in a few years' time, he was to undertake works of restoration, among them that of Burford Church. That with which his name will always be chiefly associated was the Norman Church of St. Bartholomew, Smithfield. He laid out St. Bartholomew Close in 1880; and between that year and 1896, when his arduous work, which involved much study and included the practical rebuilding of the Lady Chapel, was completed, was tireless in his crusade of rescue and preservation of the finest Norman relic in the metropolis.

Meanwhile his ability had been winning recognition over a wide field of subjects. His early original works included the Huguenot Church in Soho Square and several country churches; schools, among others for the Huguenot Church and for St. Bartholomew's; infirmaries and clubs; a town and many country residences; granaries and warehouses. The year 1885 saw, also, the exhibition of his designs for buildings at the War Office and the Admiralty. Nor were his social gifts without influence upon the development of his career. His gift for administration began to find scope when, in 1884, he became President of the Architectural Association. It was the first of a long list of responsible appointments. Between 1893 and 1897 he was Vice-President of the R.I.B.A., of which he had long been a Fellow. Distinctions began to come thick and fast. In 1899 he was elected A.R.A., in 1902–4 President of the R.I.B.A., in 1903 a full Academician. The sequel was a knighthood, when, in 1904, he exhibited his diploma work, designs for the lay-out of a memorial to Queen Victoria. In association therewith came the scheme for the new front of Buckingham Palace (actually carried out in 1913) and the Admiralty Arch at the east end of the Mall, which thus became at once an exemplar of Edwardian architecture and, in a sense, his own memorial.

In 1905 he received the highest honour for which British architects can recommend a Fellow, the Royal gold medal presented by the King. In 1906 the American Institute decided to commemorate their fiftieth anniversary by the inauguration of a gold medal to be awarded to eminent architects; he was chosen as the first to receive it, and in the following year Lady Webb accompanied him to Washington for the purposes of the award. He was created C.B. in 1909, upon the opening of the Victoria and Albert Museum.

A mere list of works executed during this most prolific period of his life would assume formidable proportions. They included the Naval College at Dartmouth (1889), the Imperial College of Science and Technology and the Victoria and Albert Museum (1891), Christ's Hospital, Horsham (in collaboration with the late Ingress Bell : 1894-1904), the Metropolitan Life Assurance Building, Moorgate Street (1894), the Royal College of Science, Dublin (in collaboration with Sir Thomas Deane), the Victoria Courts, Birmingham, an early competition success, to be followed later by the Birmingham University buildings, the Grand Trunk Railway of Canada Offices, Cockspur Street, and Law Courts at Hong Kong. One of the most recent buildings in the design of which Sir Aston and his son were associated was the block of offices in the Renaissance style for the Ocean Accident and Guarantee Corporation in Moorgate, completed four years ago.

A Londoner born and bred, it is no wonder that with such a keen civic sense as his chief works imply him to have possessed—no man since Wren has left his mark so big upon the town—London always occupied a large place in his affections. His aspirations for it took form in his vision of "London of the Future," unfolded early in 1914 to members of the London Society, in the formation of which he was a leading spirit. He pictured a salmon weir at London Bridge in 2014—emblem of a spacious, smokeless, clean metropolis. And though the war supervened, the dream endured. In 1921 he edited a large volume with the same title, which contained the ideas of nineteen other members of the society, like unto himself.

The rest is a tale of honours. In 1919 there fell to him, and through him to the profession of architecture, an honour that may be said to have set the crown upon his career. After sixteen years as an Academician he, an architect, was elected President of the Royal Academy. Ever since the days of Sir Joshua Reynolds this chief office

had been reserved for a painter, and on only one previous occasion had it been held—and then doubtfully, for the election was not ratified by the Royal signature—by a member of this profession: to wit, by James Wyatt, "The Destroyer," in 1805. In the last year of his office, 1923, he was elected an hon. LL.D. of Cambridge University, and a member of the Royal Academy of Sweden, in further recognition of his valuable services to architecture. In 1924, it will be remembered, he was involved, together with Sir William Llewellyn, the present president, while returning from the R.A. banquet, in a serious motor accident: a prolonged and serious illness followed, and, partly on this account, he retired from the presidency, being elevated to G.C.V.O. in 1925. He was an original member of the Fine Arts Commission, formed in 1924. His most recent honour was the Albert Medal of the Royal Society of Arts, awarded to him in 1927.

TRIBUTES IN THE PUBLIC PRESS

IF we ask whether Sir Aston was a great architect from the artistic point of view the answer must be doubtful. The more cultivated among his brother architects do not put him on a level, for instance, with Street, and he certainly exercised no such artistic influence as Bodley and Norman Shaw. The fact is that he was almost too successful. His work was so vast that he had to surround himself with clerks—people say, fifty at least—so that his office became more like a Government Department than the studio of a man who had time to think and draw. But thinking and drawing are essential to fine architecture, and they cannot be deputed. The wonder is, not that the work of a man with fifty clerks sometimes fell short of the highest artistic standard, but that in Sir Aston's case it was so good as it undoubtedly was, and that his personal touch was impressed throughout every design for which he made himself responsible.

—*The Times.*

Sir Aston Webb's was a charming personality, and few men of his profession were more deservedly esteemed by the younger generation of architects. His advice and assistance were always at the disposal of those who needed it. In spite of the onerous nature of his practice, he cheerfully undertook the duties of various honorary offices connected with his calling, and he fulfilled them admirably.

—*The Manchester Guardian.*

He was not only notable as an architect but as a champion of modern architecture, as understood by what may be described as the Conservative school. He liked rigid and formal design and almost as passionately disliked that emotionalism which has of recent years invaded the earlier tradition in architecture. He had a splendid technical equipment, to which he was able to add that subtle sense of fitness to the occasion with which he had to deal, that marks the difference between the mere journeyman and the artist.

. . . .

He planned and worked for the future of London, bequeathing to a younger generation his dreams of a city changed and ennobled in many ways beyond the range of architecture alone.

—*The Daily Telegraph.*

He combined art and utility, and though his buildings do not show the severe economy and simplicity aimed at by the younger architects of today, they are dignified and attractive. Sir Aston Webb was in advance of his age.

—*The Daily Mail.*

. . . unquestionably one of the foremost architects of his day.

His designs for so many public edifices entitle him to be considered par excellence the architect of King Edward's reign, though his ultimate fame may rest rather on his restorations at the Church of St. Bartholomew.

—*The Morning Post.*

Sir Aston resembled Wren in his ambition to beautify London, and he leaves many memorials of his artistic triumph.

. . . .

Modest and retiring, but a wise and tactful administrator, he had in full measure the esteem of his fellow members.

. . . .

He had had a great influence on British architecture for more than a generation.

—*The Yorkshire Post.*

Of Sir Aston Webb, Londoners might say that they only needed to look around to find his monument.

—*The Daily Sketch.*

NEWS & TOPICS

IN ST. PAUL'S CATHEDRAL

THE profession's last tributes to a great Londoner were paid on Monday. The Rev. Canon S. A. Alexander conducted the service at St. Paul's Cathedral for the funeral of Sir Aston Webb. H.M. the King was represented by Admiral Sir Henry Campbell, K.C.V.O., C.B., and H.R.H. Princess Louise by Brig.-General Alfred E. J. Cavendish, C.M.G. The pall-bearers were Sir William Llewellyn, P.R.A., Mr. Walter Tapper, A.R.A., P.P.R.I.B.A., the Rt. Hon. John Burns, Sir Arthur S. Cope, R.A., Sir C. Harcourt Smith, the Mayor of Kensington, Sir Frederick G. Kenyon, and Sir Basil Mott. Sir Edwin Lutyens, R.A., and Sir W. Goscombe John, R.A., carried the orders of the past president; and Sir John Short, R.A., Treasurer, and Mr. Walter W. Russell, R.A., Keeper, carried the wreath from the Royal Academy. I understand that a wreath from the R.I.B.A. had been sent earlier in the morning. In addition to the representatives of the Royal Academy, over seventy members of the R.I.B.A. attended the service. (A list appears on p. 317.—ED. A.J.) Among those present I saw Sir Harry Courthope-Munroe, K.C., who represented the Council of the Imperial Society of Knights Bachelor; Sir John W. Simpson, P.P.R.I.B.A.; Sir Mervyn Macartney; Sir Arthur Pinero; Mr. H. Clifford Smith, who represented the Victoria and Albert Museum, and Mr. Henry Ainley, the actor. Representatives also attended from the Warehousemen, Clerks and Drapers' Schools. The service concluded with the Dead March, the first time the organ has been used for this purpose, I believe, since its restoration. The interment was private, at the express wish of the family.

TOWN-PLANNING INSTITUTE'S MAJORITY

The Town Planning Institute celebrates its twenty-first birthday this year, and it is a remarkable thing that the men who formed with Mr. Thomas Adams a group of enthusiasts banded to further the aims of town planning, and win a definite place for it in the legislature of this country, should all be active in the practice of the art today. To Mr. G. L. Pepler, who is the first and only Secretary to the Institute, town planning is heavily

indebted, for no one could have used the position he has occupied to greater effect. During the last few years it is New York, and not London, that has benefited by Mr. Adams's wide knowledge and powers of organization, but it is doubtful whether our own Greater London Town Plan could have eventuated without the example set by New York, and it is a good thing for us here that the termination of the New York Plan should liberate Mr. Adams for active work in England again.

★

One might have hoped that the twenty-first birthday might have been crowned by the passing of an Act that would make town planning more than a name, but fate decrees that the planning of urban areas should be postponed still further—though surely the Parliamentary machine is not so entirely clogged that it will not find time in the near future to pass a measure which time has proved to be not only necessary but inevitable.

CARDIFF'S MILLION-POUND NEW RAILWAY STATION

The Great Western Railway Company are commencing work on a wholesale reconstruction of the General Station at Cardiff, on which they propose to spend over a million pounds. No plans are available as yet, and it is unlikely that the public will know what it is getting until the station is finished. One can only hope that the railway company will break with their bad old tradition of muddle, and design a station fit to compare with the best stations of the Continent and America.

★

The trouble with our railways in the matter of their station buildings lies with the directors, whose touching faith in their engineers' knowledge of architecture and their own comparative ignorance of the station architecture of other countries allow them to accept such a station as Waterloo as the best they could get for the money, whereas, as anyone who has travelled a hundred miles from Dover can tell them, it is a stupid and wastefully-planned engineer's job, with a quite decent architectural dressing.

★

Our English directors will not believe in real grandeur, and until they do, and until they will resolutely banish from their books the entire income they at present derive from catch-as-catch-can advertising, they will never capture the imagination of the travelling public. This new station at Cardiff is spoken of as a fine thing; but is it really to be fine, or merely big? And if it is to be indeed fine, then who is its fine architect—for the two are indissolubly linked? I am myself sceptical and mistrustful, even when I wish I might have reason to be otherwise.

ENNOBLING MANCHESTER

They are starting work on Mr. Webber's Fine Art Gallery at Manchester, and the city will be richer by yet another monumental building. At a time when Manchester is nearly a byword for industrial depression, it is indeed remarkable that so many fine buildings, expressive of so much solid wealth and secure prosperity, should rise together to proclaim the greatness of the north, like a late flowering, or the final expansion of temporarily arrested development. Manchester has got along pretty well with sooty buildings in narrow dirty streets, and more money has flowed into it than will ever again. But what did they do with their money, these hard-bitten merchants that turned a loving C. E. Montague into a viper? Well, perhaps they left a mess for this generation of the light to clear. I, for one, seeing these noble piles rising from dingy, hopeless streets, forbear to challenge the transformation, for there is lasting good to be found in fine architecture; and of how few such things beside can this be said?

A POINT IN TIME

Last week, coming out of my office in Queen Anne's Gate, I saw two men talking on the pavement. And one of them was Sir Edwin Lutyens and the other Cass Gilbert. And I passed them slowly, and turned back as if I had forgotten something, just that I might pass them again. For these little encounters are precious in the life of the ordinary man. Who wouldn't turn back to pass Shakespeare or Wren? Wouldn't posterity have turned back if it had been me? Wouldn't it have liked the chance! Lutyens . . . Cass Gilbert. The men who did the Cenotaph and the Woolworth Building, New York. And I saw them shake hands, and I heard Sir Edwin say, "Well, good-bye, Cass," and Cass Gilbert said, "Well, good-bye, Ed."; and if I could keep just that meeting for a hundred years or so, as one keeps a picture or a book, well, I could sell it to posterity for quite a lot.

A COMPETITION PROMOTED BY THE SOVIET

A competition is announced in this number of the JOURNAL for a "mass-musical" theatre for the town of Kharkov, in Ukrainian Russia. The competition is international, as much, one surmises, for purposes of propaganda as from a desire to find the best architect, for the conditions of competition take the form of a brilliantly clever work of typography and book design, printed in five languages and interspersed with admonitions to all the workers of the world.

★

The theatre itself is to hold 4,000 people and to be equipped with every possible requisite of a great State theatre, and, in addition, with the most scientific means of dealing with large crowds, not only as to their entry and dispersal, but with a view to their proper saturation with Soviet uplift, through the medium of music and massed theatric effects. I quote: "The State Opera Theatre of mass musical stage—as one of the strongest instruments to act on the masses—should mobilize its activity around the basic problems of our epoch." There is a good deal of similar uplift nonsense in the preface, though the actual conditions are very precise and detailed.

★

As the theatre is to be finished within the Five-Year Plan of the Soviet Government, the drawings are to be sent in by December 29, 1930, which is little enough time for a very complicated project. The jury numbers fifty-five and seems to include the entire intelligentsia of Kharkov—which is the worst possible advertisement for an international competition.

THE HOUSEWIFE AS CRITIC

The housewives of Watford are to be allowed to satisfy themselves that the new Council houses will be all that a woman's instinct for home-planning can make them. Which is to say that a committee of women councillors and others are to go over the Borough Engineer's (*sic*) plans to look for snags. This is a good idea. Women should know where they want things in the home, and should at least be aware of the common deficiencies of small houses; but I fear the spirit of competition with man that sets them to their task deprived of the humility

that is proper for so difficult a job as the planning of small houses will make their criticism less valuable than it might otherwise be.

★

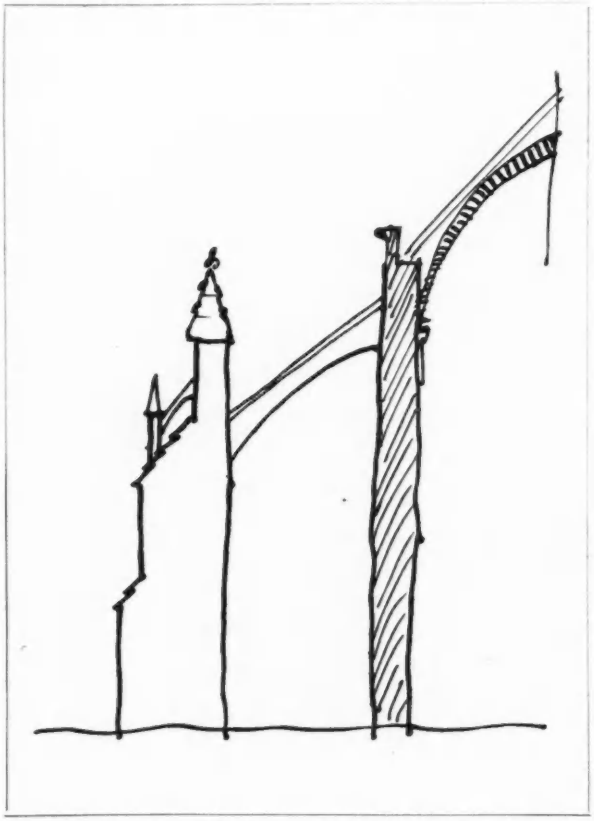
For instance, one woman is reported as saying that she would count the number of stairs the housewife will have to go up and down during the day with the object of reducing them, which as anyone who has ever worked the variations on three themes that constitute the entire repertoire of cottage staircase design, will recognize as absurd.

★

Another hopes to eliminate unnecessary redundances and so reduce the cost; while another expects to find a dozen things "that appear small, but as every woman knows, are important." Now this point of view is not only rather ungracious to man, but just a little pompous and complacent in woman, and might quite easily be proved to be more a by-product of the many excellent journals on home-building than a genuine revolt of the female house-slave.

A SURPRISE AT BATTLE

In spite of pink asbestos dumped on beauty spots, I am continually surprised at my countrymen's genius for conservation! Visiting Battle Abbey, in Sussex, the other day, I found a young ladies' college in possession. The last of the noble families who have held it since the time of Henry VIII. have disappeared, leaving behind only a fine library, some rustic retainers who act as guides on show days and cultivate the gardens in their spare time, and a few masons and labourers to continue the restoration of the scriptorium and dormitory, very beautiful late Norman work. Although the ghosts of the monks may be a little shocked to see so many pretty girls in the Abbot's Hall, and a feminine occupant of the Abbot's canopied seat, the discipline and daily prayers are not so far from the original using of the place as the too-rich mix of dogs, duennas, old sports and beans, flirts and cocktails in many country houses today.



Humour in architecture; a "pup" flying buttress.

WHY ASPHALT?

The great entrance gateway with its flanking façades is as mellow as an old espalier hung with ripe pears, and makes the houses which flutter round it on the "green" look as small and as brilliant as butterflies. But who told the local authority to pave the "green" with asphalt? If the motor charabangs (I prefer the democratic spelling) have killed the grass, surely cobble stones would have been more native to such a charming place.

TRIBUTE TO A BUILDER

It is always with the greater pleasure that I spring forward to record good deeds for having so often to inveigh against a naughty world. I like builders and am surprised that, notwithstanding my experience to the contrary, they are often set down as unscrupulous villains, and, I suspect, by that same public that looks upon architects as the most respectable but most plausible rogues that ever induced honest men to part with good money.

★

Let it therefore now be written to the credit of builders that the residents of a building estate at Tilehurst have so far recognized the honesty of their builder as to present him with an illuminated address, in which they set down their appreciation of his integrity and its results in good building, and their belief that they had received the *full benefit of the housing subsidy*. It is enough to say that Mr. Haddock, the builder, was completely overwhelmed by the unexpectedness of the tribute, to know how infrequently there is cause for such congratulation, and, it may also be said, how much is accepted as part of the contract.

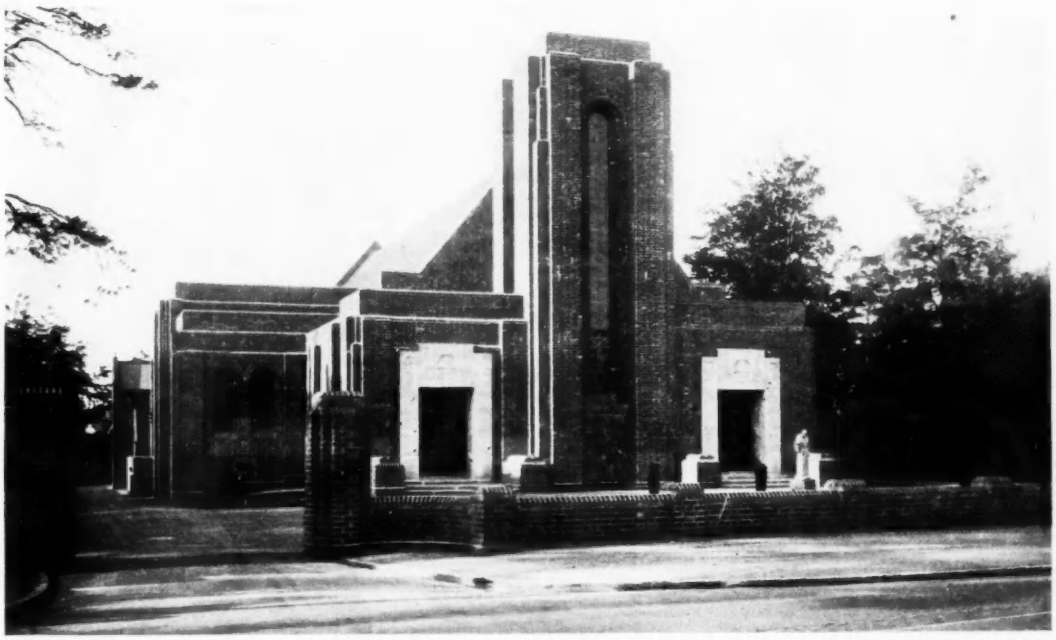
WOVEN HORSE-HAIR

I wonder how many architects know of the horse-hair weaving craft that is still carried on at Lavenham, one of the rarest and most beautiful townships in England. I said "still carried on" carelessly, forgetting how perfectly this phrase has come to betoken a state of final stagnation. The case is far otherwise with this ancient craft, for although it has dwindled and fallen upon evil days, it has survived without real loss, and requires only a more general knowledge of its virtues to make it once more the supporter of a whole rural community. To architects horse-hair has a special appeal, for though it is hard-wearing to an extent not realized by any other material, it is made in many other colours than the discredited black of our forefathers, and can be used to produce just those colours that would be out of the question in less durable materials.

HUMOUR IN ARCHITECTURE

"I note you do not think" (writes a correspondent from South Wales, referring to my note in last week's JOURNAL) "there is scope in building for the comic. It is hard to believe, however, that the construction of the 'pup' flying buttress sketched here was entirely serious. The original may be found at Milton Abbey, in Dorset."

ASTRAGAL



The dominant feature of the frontage presented to Belle Vue Road is the tower, within which is a memorial, with a bronze and purple grille. The doorways are enriched with carved stone surrounds.

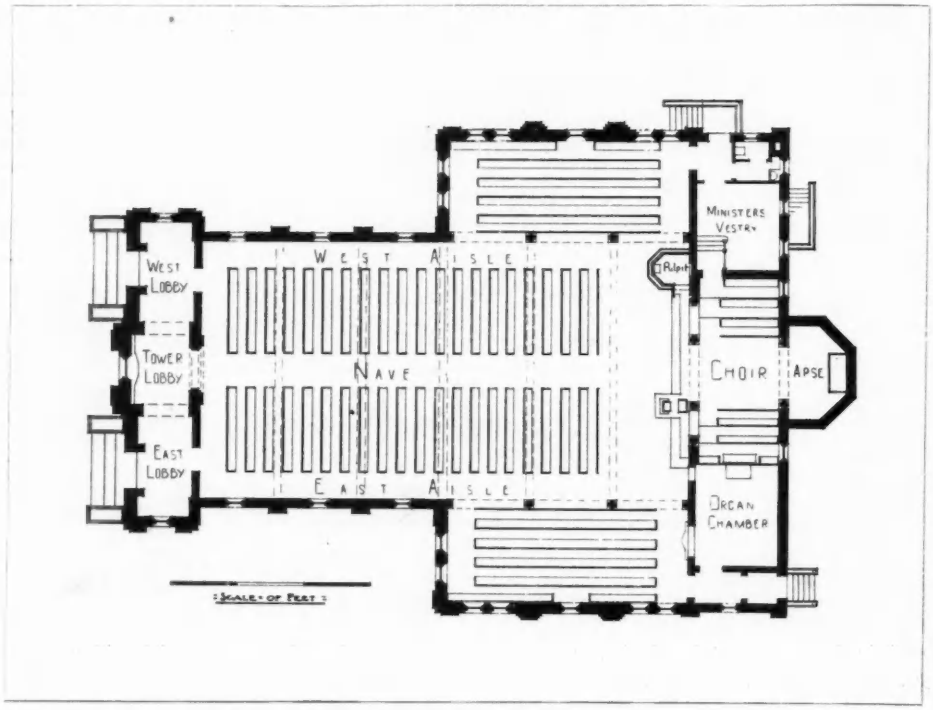
CONGREGATIONAL CHURCH, SOUTHBOURNE, HANTS.

DESIGNED BY FREDERIC LAWRENCE

IN the design of this church near Bournemouth, recently dedicated, financial considerations exercised some influence upon the choice of style: extreme simplicity was enjoined. It represents an attempt to achieve dignity by mass rather than by ornament. The exterior lines of the structure, for which the bricks were specially burnt under the architect's direction, would be of classical severity were they not relieved by a tendency towards Byzantine freedom. With such catholicity of fancy the formation of a lily-pool and bird sanctuary in the



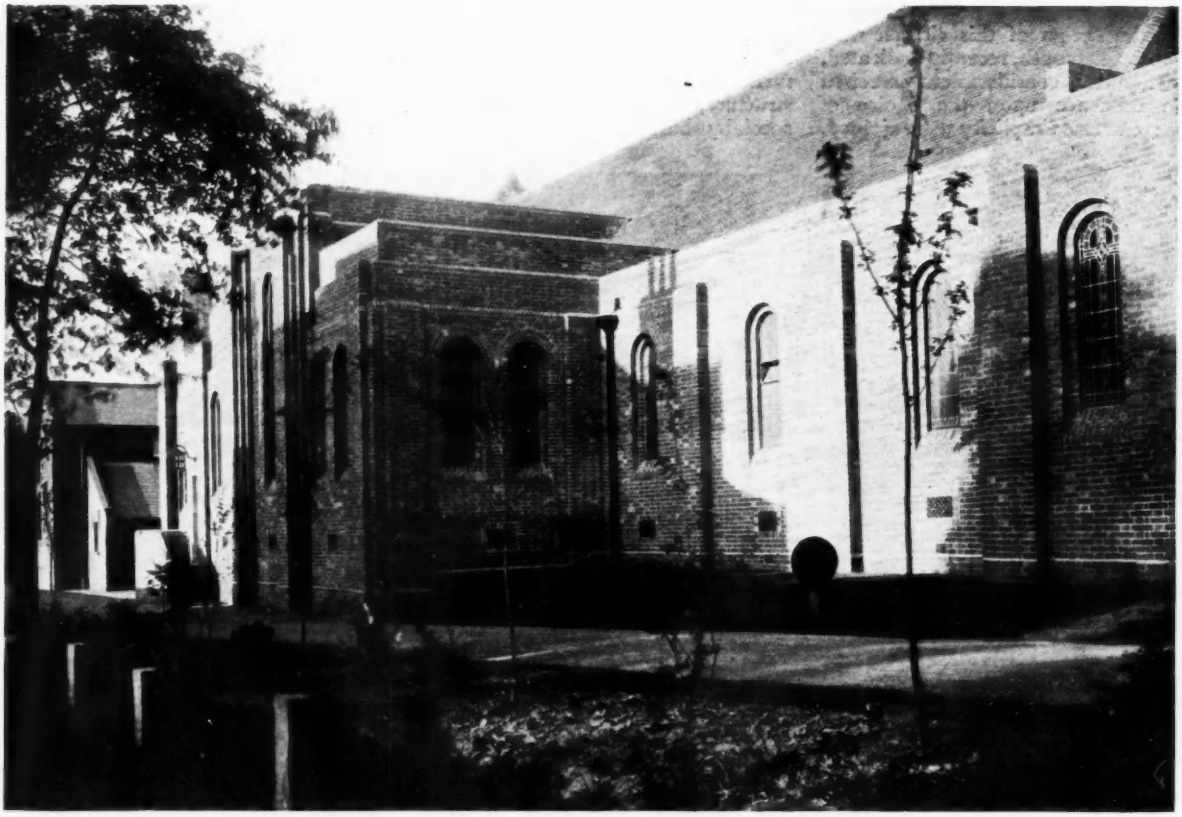
A pottery figure of St. Francis rests on an inscribed pedestal in the centre of the lily-pool and bird sanctuary, immediately before the main entrances.



Some 550 worshippers are accommodated in the pews. The placing of an apse in the head of the T-shaped plan gives the impression that the church is longer than it is.

forecourt, over which the figure of St. Francis of Assisi presides, is in full accord. This statue was modelled in the famous village pottery at Compton, under the care of Mrs. G. F. Watts, and, as will be seen from the illustration, the pedestal is inscribed with a laudatory saying of the Saint.

Within, impressions proper to a sacred building are bound up with the sensation of height produced by the deep coloured glass window in the memorial tower, and the lofty arch connecting the tower to the church, and with the sensation of mystery produced by the golden lighting of the apse. Indeed, this golden note plays an important part in softening and enriching the interior. The pews and other wood-



Immanuel Congregational Church, Southbourne, Hants]

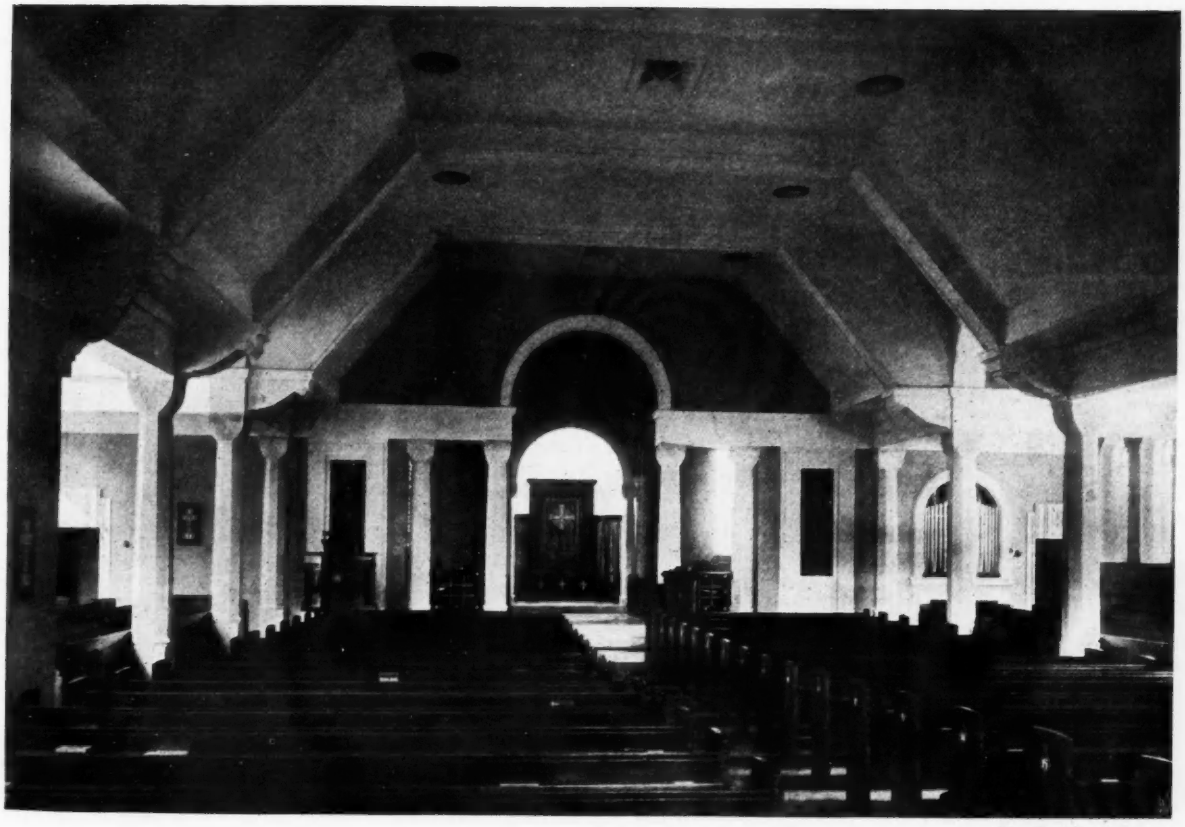
In this view of the western side of the church, with its transept, the setting out of the plan is seen to be a factor in the grouping of simple masses to give an effect of perspective and dignity. The design of the leaded window is visible.

work are in oak. As regards artificial lighting, pendants are conspicuous by their absence. Flood-lights for the nave are placed in the roof, and in other cases are hidden by various projections. Heating and ventilation are combined: the outer air passes over low-pressure radiators before entering the building. The comfort of the congregation has been still further studied by the provision, in the first eight pews, of earphones connected to microphones, for deaf worshippers.

A memorial stone records: "The tribute of the congregation to Frederic Lawrence Architect; F. A. Grigg Builder; H. G. Eaton Foreman and the men who built this Church." The cost was about £8,000.



A near view of the chancel and apse. The capitals of the pillars are enriched with carving, the grilles and railings are gilt, and the hangings are of purple and gold.

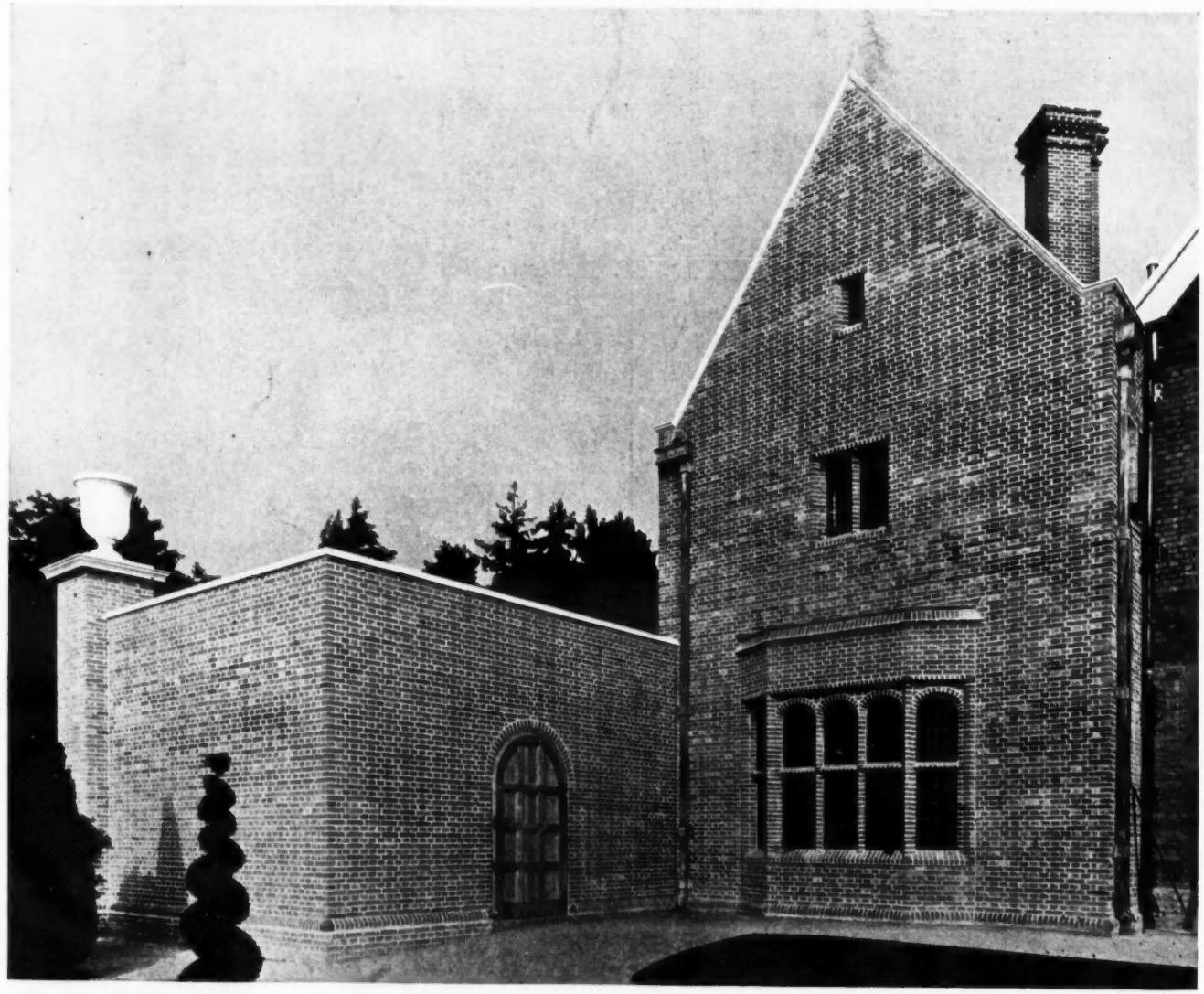


[*By Frederic Lawrence.*

The arches to the chancel and the apse distinguish the interior. The organ-pipes are arranged before an arch on the right. No light-fittings are visible: flood-lighting avoids the possibility of glare between the preacher and the congregation.

NEW NORTH WING: FARNHAM CHASE, BUCKS.

Designed by *Adshead & Ramsey.*



The west wall and end of the new wing. The mixture of the multi-coloured bricks, obtained from different yards, has resulted in a very pleasing effect, giving a softer and less monotonous appearance than is usually the case with new work. The door shown in the illustration gives access to the north front, a view of which is shown on the facing page. The bay window lights the study.

NEW WING, FARNHAM CHASE, BUCKS.

DESIGNED BY ADSHEAD AND RAMSEY

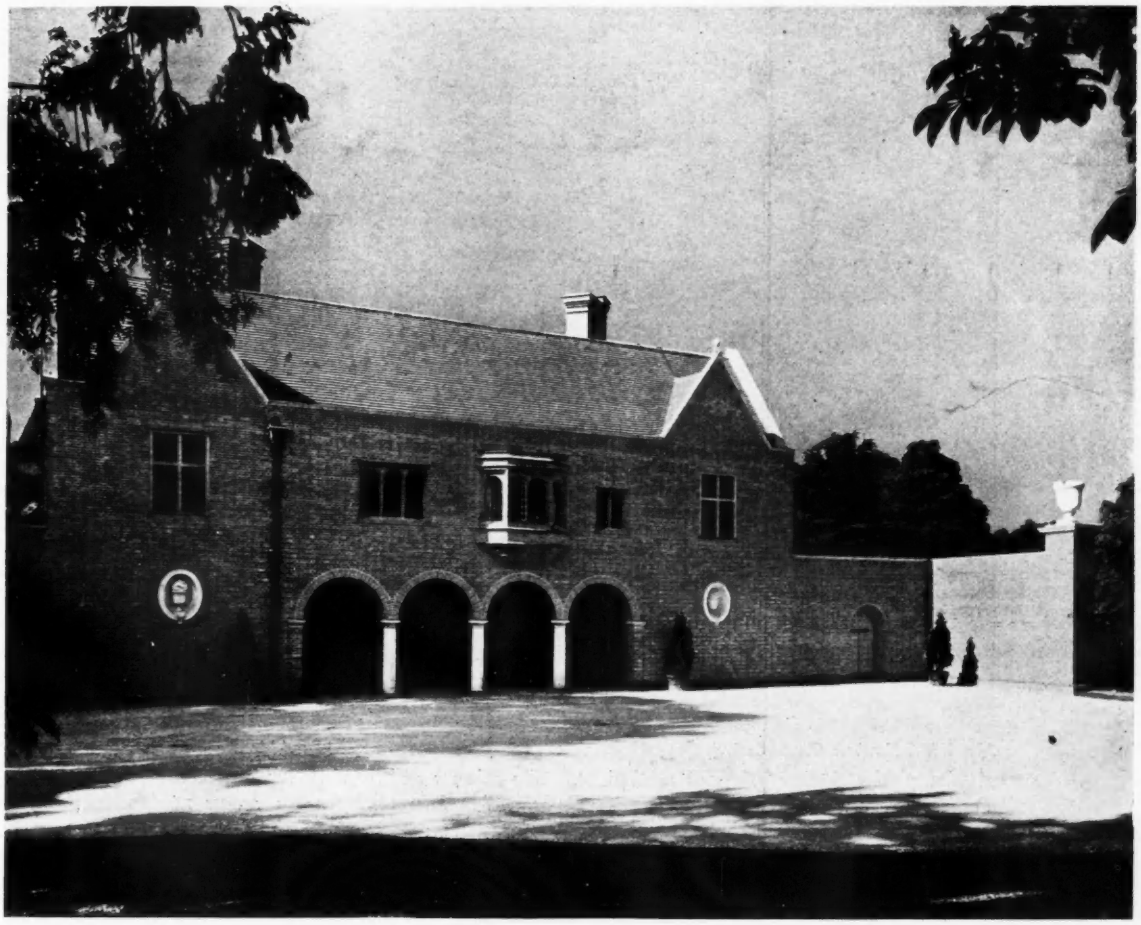
THE original building which occupied the site of Farnham Chase appears to have been a small farmhouse to which additions had been carried out from time to time, until the present large, but not unpicturesque, house has resulted.

The problem that faced the architects was that of devising a plan that would give the extra bedroom accommodation on the first floor, at a required point, without unduly interfering or extending the ground floor, where only part of the area occupied by the rooms on the first floor was needed. It was decided, therefore, to provide on the ground floor a large covered courtway, or entrance court, between two new projecting bays, with flanking walls.

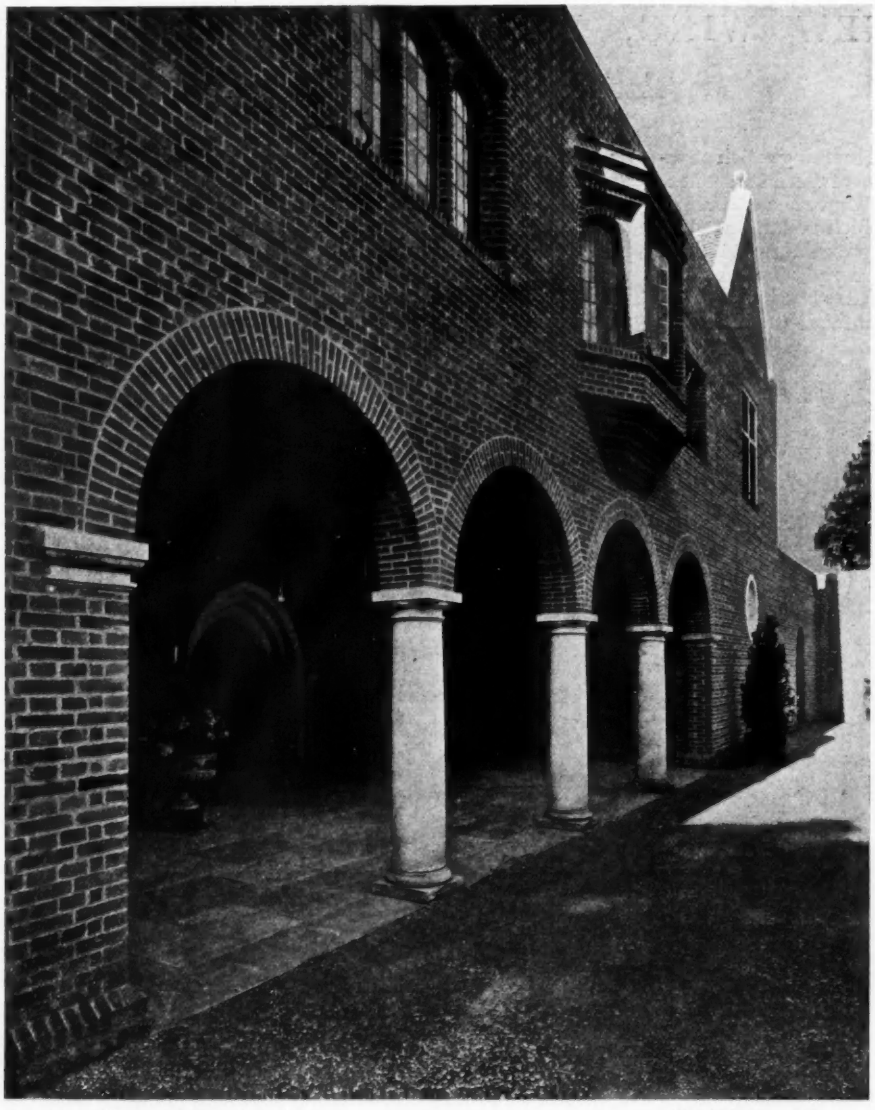
The picturesque character of the original structure to some extent determined the architectural lines of the new wing. It was felt that a greater dignity than the old, rather meagre, north elevation was necessary, so it was decided to build the new front on the lines of those early manor houses that combined the picturesqueness of the Late Tudor with the refined stateliness of the Early Renaissance.

The walls of the new wing are built of multicoloured bricks which were obtained from different yards, due to the fact that no one yard had sufficient bricks of the size required in hand. The roof is covered with local hand-made sand-faced tiles, and the columns and dressings are executed in Portland stone, the courtway itself being paved with Portland stone and Purbeck, laid in square random in the proportion of about one-third Purbeck to two-thirds Portland. The rainwater pipes and heads are in lead and were specially designed for the work.

The operations had to be carried out in an exceedingly short time, only six weeks being allowed from the handing over of the site to the finishing of the paintwork.

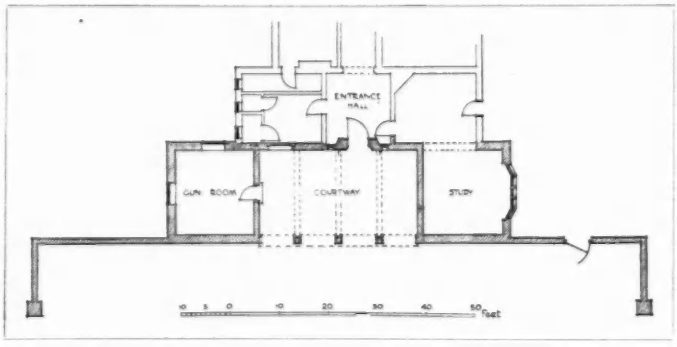


The arcade and oriel above are distinctive features of the new north front. The roof is covered with local hand-made sand-faced tiles; the rainwater pipes and heads are executed in lead. The door on the right of the photograph is that seen in the facing picture.



New Wing, Farnham Chase, Bucks.] *[By Adshead and Ramsey.*

A photographic detail of the new north front. The columns and dressings are carried out in Portland stone; the same material, with Purbeck, has been used for the square random paving. The recessed, arched doorway, seen within the arcade, leads to the entrance hall.



The ground-floor plan of the new north front. The main object of the alterations was to provide extra bedroom accommodation on the first floor. Therefore, it was decided to provide, on the ground level, a large covered courtway between two new projecting wings. The room to the left of the new front was designed as a gun-room, whilst that on the right was extended to form a study.



ENGLISH PRECEDENT No. 130

THE ORANGERY, KENSINGTON PALACE

"There are different reasons for Objects, whose chief View is in Front, and those whose chief View is sideways," says Wren in his Parentalia. *The ever-entrancing orangery at Kensington Palace was certainly meant to be seen from the front; yet this sideways view shows how it was made to cohere with neighbouring features. The punctuating features of the gate-pier and the short length of wall carry on the springing-levels of the two arches in the façade. As at Hampton Court, the homogeneity of Wren's work with that of his predecessors betrays a gift of pliability and self-effacement that has been equalled by no other English architect.*

—[C. BARMAN]

LETTERS FROM READERS

The Mansard Roof

SIR,—The views on the mansard roof which Mr. E. Maxwell Fry expresses so dogmatically in THE ARCHITECTS' JOURNAL for July 30 are not so readily capable of solution in practice.

In many cases the question of floor space is of such vital consequence to the financial success of the building, that vertical set-backs, especially of the magnitude shown on some of Mr. Fry's diagrams, are quite impossible.

On the top story of "flat" buildings, rooms which are treated internally with vertical walls are provided with bed recesses, cupboards and similar amenities in the sloping roof space. These cupboards, etc., are important items in "flat" buildings. No architect with commercial knowledge of developing office buildings could contemplate the excessive sacrifice of floor space shown in figure two. It may be a matter of minor importance to stress the architectural aspects of buildings, but it is not always possible to treat an elevation with vertical planes entirely, and in many cases the roof slope, coupled with certain vertical portions, is architecturally more attractive than a scheme of pure straight lines. On the other hand, many sloping roofs of modern buildings are quite unnecessary, representing ridiculous sacrifice of floor space, and have been used by their designers merely as an easy means of solving an architectural problem with designs that are hidebound by unsuitable traditional forms.

The condemnation of the sloping roof used indiscriminately is entirely in accordance with the practical view of architectural design. The statement that vertical faces can invariably be substituted for sloping roofs without loss in some cases, and with considerable gain in most cases, must be qualified. I have used both methods with success. T. P. BENNETT

Guildford Cathedral Competition

SIR,—The letter signed "Fane," published in your issue of August 13, raises some interesting questions which are not by any means disposed of by the Archdeacon of Surrey in his reply a week later. The question of site alone is of very considerable importance, and it surely should not be necessary in the first instance—though, of course, very desirable later—to journey to Guildford to see it.

Such information as is available is not only scanty but, as a statement of requirement, positively bewildering.

The committee are desirous of "erecting a cathedral of moderate dimensions," yet the Bishop of Guildford, who will no doubt have some say in this matter, speaking on June 12 last, expressed the hope that the new cathedral would surpass Truro in size. London, he said, is already spilling over into his diocese, and he expected that his diocesan population would increase and multiply during the next thirty-five or forty years to the tune of one million souls; and the cathedral should be large enough to serve their needs.

To return to the question of site, on which point the published conditions are so vague, the Bishop has a hint to give here also; and referred in his speech to the knoll near Guildford known as Stag Hill, from which he said they could "on a clear afternoon" see something like half the diocese. It is a commanding site—a site likely to appeal to architects. But the promoters in their own list of requirements give no hint of it, and the Venerable Archdeacon mentions quite casually that it can "easily be ascertained" by a visit to Guildford.

It is also apparent from the first paragraph of the conditions that the promoters set out to draft these with a view to discouraging anybody but those extremely fortunate (and presumably elderly) gentlemen who have "been engaged in the building of cathedrals and churches" from entering, but set a limit on this display of work achieved, of three sets of drawings. They do not "exclude" photographs.

Later, however, with almost reckless abandon, they are sufficiently incautious as to relent to the extent of permitting architects who have not been thus engaged to submit similar portfolios. It would seem, therefore, that the unfortunates have merely to sit down and design one, two or even three cathedrals *in vacuo*, supplement them with perspectives in lieu of photographs, and enter the lists on or before November 30.

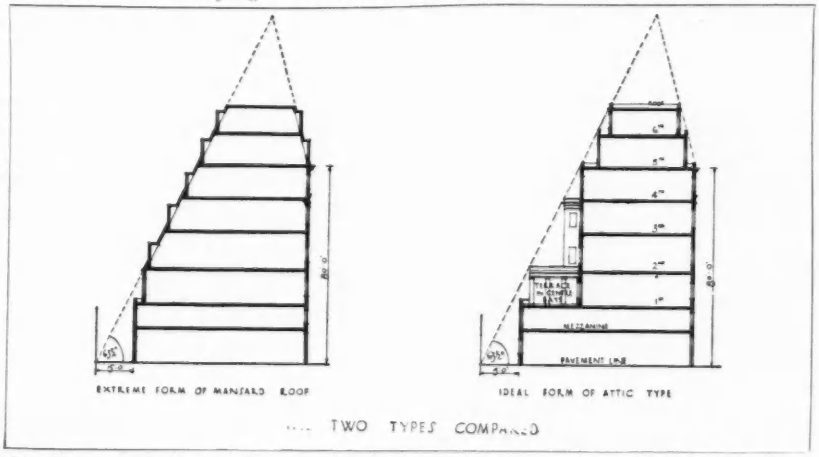
Let us return to the Bishop and his speech (which, in spite of its bewildering inconsistencies, is a set of conditions in itself), and pick up more crumbs.

As to style, for instance. His lordship, though perhaps somewhat bemused, undoubtedly knows what he likes, and offers a grave warning against "foreign" influence, forgetting, in his anxiety to tell us that the cathedral must be designed and built "in the direct line of English tradition," that the best of English Gothic developed under "foreign" influence. And, let it be whispered, French at that.

The Bishop wants no mere copy of a mediæval church, but a great open space, where the pious representatives of a million-souled diocese, after having gazed upon the pulpit, can pause in their exit during the voluntary to contemplate the work of that successful and elderly gentleman who has been able to produce, in the direct line of English tradition, a church interior "without great columns or piers."

Is it too late (cathedrals take a long time a-building) to issue a fresh set of conditions which shall set out exactly all the known requirements and restrictions, and to invite all and sundry who have any opinion of their capabilities to submit ONE scheme in draft and then to select a number for the final; and, above all, to omit the clause "unless there should be good reason to the contrary and under conditions hereafter to be announced"?

P. E. P.



The Mansard Roof: figure two (reprinted from A.J., *July 30, 1930). The left-hand sketch shows the type of building produced by law, and on the right is an attempt to design sanely in spite of the law, drawn by E. Maxwell Fry.* [*See accompanying letter from T. P. Bennett.*]

Sheffield Recants

SIR,—As a Sheffield architect I have read your leading article on the above subject, which appeared in your last

issue, with interest and, may I add, with entire concurrence.

Your view that a public building of this importance should have been offered for public competition is precisely that which was represented by the Sheffield Society of Architects to the City Council over a year ago—it need scarcely be added, without effect.

If what has subsequently happened should help to rouse public opinion, both in Sheffield and elsewhere, to the unreasonable lengths to which the development of official architecture is being pushed, we Sheffield architects will at least have reason to feel that "good has come out of evil," and that the trying conditions under which we have had to do our work in Sheffield during recent years have not been endured in vain.

Whilst we have been practically excluded from all share in an ever-widening field of public building, and this, too, on grounds which you rightly stigmatize as fallacious, our sole protest has been on the ground that what was being done was against the interests of good civic architecture, and I venture to think that a comparison of our city with others, where some encouragement has been given to independent talent and initiative, will prove this to any impartial and duly qualified critic.

Most assuredly architecture cannot flourish in an atmosphere in which all emulation and healthy competition is suppressed.

CHARLES M. HADFIELD

SIR,—Your leading article of August 20 raises in interesting form the question as to whether our local authorities are doing well, and their best for the ratepayers, in employing their officials to design public buildings and schools.

It is the conception and design of a building that ultimately make it worth something, and to spend money on any building that falls short of the best in design is money ill spent. This fundamental fact is often lost sight of.

As long as the best is achieved it matters not if the architect is an official of the authority or an independant man, but, as you point out, the qualifications for which an official is appointed are unlikely to be those of the finest designer.

Public authorities, having lost sight of the value of the finest design, frequently fall into the idea that in employing their official, who was appointed for the routine work of repair and upkeep, they are saving the five per cent. paid to the architect. This is, of course, illusory. After all, an architect provides not only his own services but the services of draughtsmen, clerks, and office accommodation. If the work is done in the public office, it means increase of staff and eventually of accommodation and so forth. Once a public staff is increased it is difficult indeed to reduce it again.

I have lately been to Sweden, and it is a revelation and inspiration to see the fine and distinguished work that is being done there in the building of public buildings, schools and so forth—work that is drawing visitors in thousands to that country, not to look at the old and historic buildings, but to admire the beauty and imagination displayed in the modern work. This is not achieved by reducing the buildings to a level of official architecture, but by giving the work to the best architects to be found in the country. We shall fall far behind our European competitors if we allow our schools to continue in a dull official mould, and it is clear that the municipal buildings of any town should be the finest thing in building (not necessarily the most expensive) that can be achieved. Only then can the citizens have any real pride in their town.

It is not a matter of saving a small sum on an architect's fee, but a matter of a large sum ill spent unless the conception and design are right. The choice as to the architect should be solely governed by the decision as to who can produce the finest work.

OSWALD P. MILNE

Settling-Up Honeywood : xiv

LADY BRASH REALIZES HER IDEAL

BY KARSHISH

(H. B. CRESWELL)

Grigblay, the builder, under the direction of the architect, Spinlove, has dealt with an outbreak of dry rot during the absence of the owner and his wife, Sir Leslie and Lady Brash. The extras account is still in dispute, and the failure of the inside painting is a matter of some seriousness.

SPINLOVE TO GRIGBLAY

Dear Sir, 1/9/26.

I am obliged for your letter covering your foreman's replies to questions. I have, however, to point out that in no case is the fact substantiated that work, stated to have been authorized by me, *was ordered as an extra.* As you are aware, unless work is definitely authorized as an extra *at the time it is done*, the assumption is that there was no understanding that it was to be an extra. I should be glad if Mr. Grigblay would make an appointment here to go into the various points raised with me.

I saw Mr. Tinge two days ago, who calls my attention to the fact that you have charged for re-pointing work damaged by frost; but under the terms of the contract the responsibility for making good damage by frost is *yours.* I overlooked this, or should have objected to the item before. I have told Mr. Tinge that it must be struck out.

Will you ring up tomorrow and let me know whether the work in making good dry rot has been completed as promised.

Yours faithfully,

Spinlove is right on the point of authorization of extras, but, actually, the terms of the contract are more rigid, for they require that, in order to rank as an extra, work must be authorized in writing *as an extra.*

Tinge is right, too, in the matter of damage by frost. Grigblay engaged to "protect from damage by frost," and is therefore responsible for making good damage due to failure to protect.

GRIGBLAY TO SPINLOVE

Dear Sir, 3/9/26.

Mr. Grigblay will call to settle account on the 7th at 2 o'clock, as arranged over phone.

We will ask you to note that we have on many occasions carried out work, charged as extra in Statement, and accepted by you, on your verbal order and have always accepted your word and put in hand as desired without delaying for written order, or where should we be with all the variations there have been ever since the work was begun, waiting for written orders and not getting same. There are not above half a dozen written orders from first to last, and the only orders we have had have been verbal, which we have acted on at your request and to your approval. Now that this does not appear to please you, we shall be glad to have written authority for extra making good dry rot as per your instructions and oblige. The men cleared up yesterday.

If you will look at the Interim Statement we sent you, you will find we have charged only difference in value between plain struck joint and special pointing to your instructions and approval.

Yours faithfully,

Grigblay, in his own way, presents his view of the authorization of extras with clearness—if for "verbal" we read oral—*and the position he takes is just. The contract stipulation that all work that is to rank as extra shall be authorized as an extra in writing when the work is done, is a good one; but like many excellent rules*

it can, in practice, not be always exactly followed; and in cases such as Honeywood —which are the rule rather than the exception—where there are a large number of small variations, its strict enforcement would entail delays and consequent losses which no builder could be expected to tolerate. We know that Spinlove was lax in enforcing the rule and, in the circumstances, it is hard to see how it could have been enforced; but as he has accepted *as extras a number of items in the account which were not formally authorized, he cannot* object *to other claims on the grounds that they were not formally authorized, and accordingly each case will have to be settled by wranglings to decide what the facts giving rise to the work actually were. In that wrangle Grigblay will have the advantage of holding exact records which he can use as may best serve his ends; while Spinlove will have little but his memory to oppose to them.*

SPINLOVE TO LADY BRASH

Dear Lady Brash, 6/9/26.

As I understand you are now home again, I think I ought to write and just let you know about the new "converted attic" which Phyllis showed me—in fact, we all had tea up there. It is delightful, I know; so snug and cottagy with the low sloped ceiling and dingy light and the warming pans and the jolly little boxed-out chimney corner—all most ingenious, I have never seen anything at all like it before; but perhaps you do not know that it is not a *habitable room* as defined by the Regulations of the Local Government Board and required by the bylaws. The roof space arrangement, you see, was only allowed by the District Council on my undertaking that it was to be used as a boxroom or store, *only*, so that you are violating the local building regulations—breaking the law, in fact—by using the place as a habitable room. If I had not promised that the place would *not* be used as a habitable room, the District Council would have refused to allow the house to be built. You see, in order to comply with the minimum requirements of the Model Bylaws, the ceiling would have to be much higher, the roof-slopes much less, the window much larger and the walls, all the way down to the ground, thicker. Of course, if it were an old house built before the bylaws were adopted, you could do as you liked; but, unfortunately, Honeywood is a new house, and if the District Council gets to hear of what has been done I am afraid there will be serious trouble. I feel I ought to write and let you know this, so that you may be prepared.

I hope you enjoyed your visits, but I'm afraid you had wretched weather during the last week.

Yours sincerely,

As Spinlove is evidently afraid of Lady Brash, and is tremulous with anxiety lest he should be misunderstood, it is clear that he only wrote in the belief that it was his duty to give the warning. What poor Lady Brash will make of the Local Government Board, the Local Building Regulations, the Requirements of the Model Bylaws, the thunder-cloud imminence of the District Council and the awful admonition "Prepare for Trouble," it is hard to imagine; but the whole thing is a mare's nest—a figment of Spinlove's imperfect knowledge. If it appears that spaces allocated in the plans to boxrooms, stores, and so forth, are usable as habitable rooms, the Local Authority can require them to comply with the dimensions, lighting and ventilation ordained for habitable rooms; but it cannot prevent owners from screwing up and shuttering windows, or blocking the vent flues. The plans of Honeywood were duly approved, and the house completed and certified as conforming to the building regulations; and if Lady Brash chooses to entertain her friends in the boxroom, or dine in the bath, or sleep in the cupboard under the stairs, it is no business of Spinlove, nor of the District Council, nor of anyone—except possibly of a commissioner in lunacy.

If people are found living in conditions inimical to public health and sanitation, the Health Officer can intervene; but that is another matter.

LADY BRASH TO SPINLOVE

Dear Mr. Spinlove, 7/9/26.

I knew you would admire my ideal home converted attic. I meant it to be a great surprise but Phyllis has told you so now it cannot be. You cannot think what a comfort it is to get away from the servants! I just slip upstairs and know nothing of anything that is going on. Leslie prefers the lounge or the den so we do not sit there in the evenings, I think it is because of all the stairs!! Would it be *very* expensive to put in a lift for the coals as well because there will have to be coals in the winter although it is a delightfully *warm* room, in fact in hot weather it is *too* warm and I cannot sit there so it will be delightfully cosy in the winter. Can anything be done about the noise the water makes; and is it quite *safe* when it whistles all the time and roars and rushes as though it was going to run over the side, particularly when Leslie comes home and is having his bath; and then noises like a man hammering to get in and people choking and dreadful sighs and groans and sometimes cries for help, so *alarming* if anyone was able to get up there without being noticed, but I am sure you would not allow such a thing for one moment.

Your letter is so very clever I could not follow it, but I should certainly object most strongly if the District Counsel tried to interfere; he is only a greengrocer with a *quite* small shop and a nursery garden and he would not *dare* go against Leslie; such a *common* little man too, though always most civil and obliging, but if Mr. Bunseer says *one single word* I shall go to the Stores *instantly*. They send out here twice a week as he knows *perfectly well*, and the idea of this insignificant little man interfering in *my house* is a most unheard of state of things and I would never for one moment allow it. Really I do not know what things are coming to nowadays.

What delightful weather we are having again.

Yours very sincerely,

P.S.—Can you get me some old oak beams for it do you think!

Lady Brash does not appear to have been "psychoed" yet; but she knows well how to stand at bay and, ridiculous as is her view of the matter, she is nearer the truth than Spinlove. Mr. Bunseer is presumably the Chairman of the District Council, or possibly a notorious member of it; at any rate local authority is, for some reason, identified with him by the lady.

The boxroom is evidently cheek by jowl with the tankroom, and the noises complained of are merely manifestations of the healthy, joyous life of cisterns and of ball cocks, and are out of knowledge to all who do not seek community with them. Lady Brash's realization of the Ideal Home presents a charming domestic interior: the fond wife sitting secluded and remote, and lulled by the murmuring song of the cisterns, suddenly warned, by their glad outburst into full triumphant symphony, that her Leslie has returned to her and is having his bath.

Flush tanks are particularly a source of water-noises. The full-toned, reverberating flush tank or "water waste preventer," which is offered in great variety and at most reasonable prices by a large number of manufacturers, appears, however, to be popular; and those in search of a powerful instrument will like to know of Gladdener's "Orchestral" in D flat major with domed resonator and cadenza in harmonics as finale.

Lady Brash is, of course, quite astray in supposing that warmth is inherent in her snuggery. The cause of the room being hot in summer is that its outer fabric is ineffective as an insulator. This will also make it cold in winter, because the wide expanse of roof which allows outside warmth to pass readily in, will equally readily allow interior warmth to pass out. We know that Spinlove hung his tiles to battens hung direct to the rafters, without any intervening boarding and felt, and, although the place is plastered, Lady Brash's snuggery is unlikely to bring perfect content to anyone not previously acclimatized to Arctic exploration and the stoking of battleships in the Persian Gulf.

Experienced architects will recognize in this episode a trait of human nature which leads

certain clients, who are discerning in requiring the nicest efficiency in the work they do for them, to rejoice in makeshifts and discomforts of their own devising. We may be sure that Lady Brash will continue to broil and shiver in her posh cubby-hole up among the cisterns to the limits of her endurance, and, when the stimulant of novelty no longer supports her resolution, will find some other reason than the true one for her defection.

SPINLOVE TO LADY BRASH

Dear Lady Brash, 9/9/26.

Of course there is no harm unless the Authorities find out about the use being made of the boxroom, but I thought you would like to know how things were.

The noises you describe are quite usual. There is no danger of any kind, and you will be glad to hear there is no access to the tankroom except by the door, so that if you lock it and keep the key yourself you can be certain no one is in there.

I expect you will find you want quite a good fire in the winter. You see, there will not be much sun to warm the place then, will there?

A lift would no doubt be a great convenience, as you say; but I am afraid it could only be entered from the kitchen or the dining-room, and that would not be very convenient, would it? Then, of course, it would mean taking square bits out of the dining-room and the bedrooms on the first and second floors; have you thought of that, I wonder?

Yes, the weather has been delightful, but I am sorry to see in today's paper that a change is coming.

Yours sincerely,

P.S.—If I come across any old oak beams for sale that will fit I will let you know, but I fear that is not very likely.

If Spinlove had any sense of humour he could not write such a letter as this; but we know he has none, and perhaps he is, on this occasion, lucky, for his nervous solicitude is the result of experience that has taught him never to appear to oppose the lady's wishes, and that any indication of decisive contrary opinion will have the effect of opposition. Spinlove writes as though the poor woman were only half-witted, but in doing so he seems—if I may obtrude the opinion—on the safe side.

LADY BRASH TO SPINLOVE

Dear Mr. Spinlove, 10/9/26.

I was so much relieved to get your nice letter as Mr. Bunseer *never* comes to the house and I have now given strict orders that *no one* is allowed further than the passage and keep the cisterns locked up although I am sure he would never *dream* of doing such a thing, and I am bound to say that he is always *fresh* though the Stores is *not* but of course we rely on the garden for most of them.

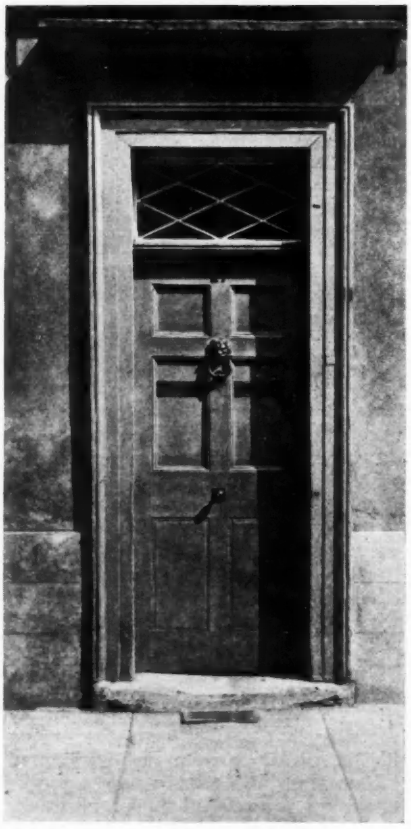
They all tell me there is dry rot Mr. Grigsby has been seeing about, but I always wanted a dry one so I suppose now it is finished it cannot be helped if it is *too* dry, but that is better than a *damp* one for my dear mother was a martyr and a cousin as well and I take after *both*.

We are giving a small dance on the 27th as the 26th is Sunday and hope to have the pleasure of seeing you and staying the night. We dine at seven.

How quickly the evenings are drawing in though still quite light in the morning!!

Yours sincerely,

We are not, I think, to understand that the lady has any fear of Mr. Bunseer hiding in the tankroom. What she means to say is that as Bunseer never comes to the house he can learn nothing of the converted boxroom; that to make things quite safe she has forbidden any tradesman to come into the house at all, and that she has ordered the tankroom to be kept locked, but not—*she is careful to let Spinlove understand—*



The doorway of No. 27 Marsham Street, Westminster, of which measured drawings are reproduced on the facing page, belongs to a small group of houses built in the late eighteenth century, and is believed to be contemporary. The design is notable for the Grecian character of the panels.

from any fear of Bunseer, whose vegetables are always fresh although those supplied by the Stores are not. Arguing by analogy from other instances afforded by her letters, I solve the ellipsis of the second paragraph by substituting "house" for "one."

SPINLOVE TO GRIGBLAY

Dear Sir, 10/9/26.

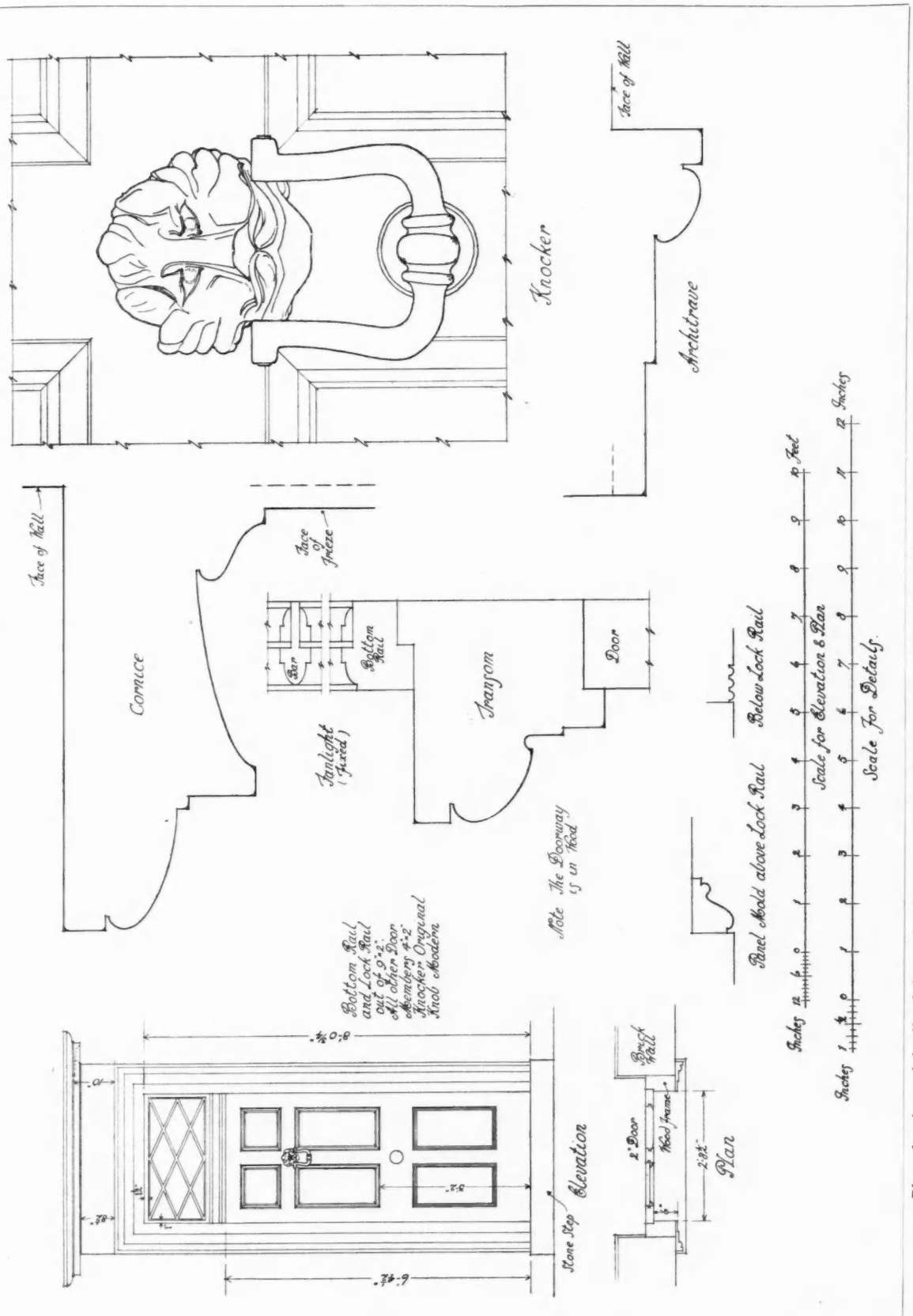
Will you send cheque for £10 to Borter as extra on bird-bath. He came to see me some time ago and called again yesterday with correspondence with the quarry company. It seems that he sent them my sketch and depended on their measures in making out his tender, but they carelessly took the scale to be 1 in. instead of ½ in., and gave him a wrong figure so that he is out of pocket. He is in quite a small way of business, working himself with the help of two or three journeymen, and I have decided he ought to be allowed the cost of the stone he used.

I am expecting to receive Mr. Grigblay's promised proposal for settlement of items still in dispute.

Yours faithfully,

Spinlove has no right to do this. It is to be hoped that neither Brash nor anyone else would wish to profit by the misfortunes of an artist who has made a beautiful thing for him with his own hands, or to take advantage of a technicality which enables him to force an individual craftsman to bear the cost of the work instead of paying for it himself; but it is not for the architect to usurp his employer's discretion and, on an impulse of vicarious generosity, make a present with his client's money, as Spinlove here does. His duty, as Brash's architect (or agent), was to give Borter exact particulars; examine the tender so as to assure himself that Borter understood what was wanted and was not opening his mouth too widely; then set up an exact contract, and see that it was exactly completed. All Spinlove was entitled to do when Borter made his appeal, was to master the facts and lay them before Brash with any representations he thought fit to make. If Brash then elected to pay, payment would more appropriately be made by Brash's cheque drawn in favour of Borter and transmitted by Spinlove, than by making it an extra under the contract; for it is not an extra, but a free gift by Brash, and, as a gift was all Borter was entitled to ask for, it is right he should understand that what he has received is a gift and nothing else. I have assumed Borter's to be a genuine case; but though we may sympathize with him we need not condone his inability to take care of himself. After all, business is business. Borter and his kind bring discredit on a calling which, above all others, deserves well of architects, and, if Spinlove feels as I do, he will employ another craftsman next time he wants a bird-bath or a sun-dial.

[NEXT WEEK: XV—RIDDOPPO TO THE FORE]



Plan, elevation and details of the wooden doorway at No. 27 Marsham Street, Westminster (date : circa 1770). Measured and drawn by R. A. F. Riding.

THE IDEAL MODERN MUSEUM

To House Works of Art and Antiquity

BY AUGUSTE PERRET

IF the museums of antiquity were places of delight, ours are too often places of storage and of study. The scheme of the modern museum, born towards the close of the eighteenth century, when we find it in the competition for the Prix de Rome, was adopted by the Revolution, which wished to make it an instrument of instruction and of education.

This scheme was taken up at the same time by all the nations, who, more than France, were fain to construct buildings specially destined to the uses of museums, whilst up till now, with a few exceptions, such as those at Grenoble, Marseilles, Nantes, Valenciennes, Lille and Algiers, we were content with existing buildings for the installation of our great art collections.

The museums thus created are not ideal: their lighting is often defective, the decorations at odds with the works exhibited; but shall we rediscover, in the modern museum, the atmosphere, the charm, the prestige, of our old palaces?

In our days the abundance of works, of fragments, and the necessity for classifying these numerous pieces, has led to the adoption of chronological display. It is this that has made our museums places of study rather than of delight; their dimensions, even when they are dedicated to no more than a single branch of art, are enormous, and merely to traverse them imposes on the visitor much fatigue and consequent boredom.

Can we not reconcile the two formulæ, ancient and modern, and conceive a building that shall be at the same time a place of pleasure and enjoyment, and a place of study? That is what we have attempted to visualize.

Our museum dedicated to the fine arts would be composed essentially of a central space (C)—which would be the place of pleasure and enjoyment, where the visitor, in a short walk, could see the most famous works — and of numerous galleries abutting on this centre, galleries sacred to study. They would display works classified in chronological order, and at their junctions with the centre one would place the works most representative of their contents. This would form, for the visitor, a centre of selection of the galleries and an invitation to enter them.

What we have called the centre might be a vast rectangular court, surrounded by a double colonnade—the first open, the second closed; it is off the second that the junction halls with the galleries of study would be found.

The junction halls (J) would assume different forms and sizes. The galleries of classification and study need not be confined by two rectilinear walls, but could take the form of a series of compartments, varying in their areas and their height, capable of alteration in case of need, to admit separate collections, and to facilitate classification. Such an arrangement would afford a kind of punctuation which would assist both the curator and the visitor.

It would be unnecessary that these galleries should have many public exits; to leave the gallery one would return to the junction hall, and from there pass to another junction hall, where one would find the entrance to another gallery.

The museum need not be a labyrinth; the visitor need not be haunted by the idea that he is missing halls some of which he has not seen.

At the inner end of the central court and on its axis one would find a vast rotunda (T) from which would radiate short galleries abutting on halls, square or circular in plan, re-connected among themselves by arcades concentric with the rotunda itself. This suite, which would be like the head or heart of the museum, would contain the unique, the rarest, pieces.

Besides the necessary administrative offices, the museum would embrace workshops for examination, repair, measurement, photographing, radiographing, and storerooms, which would be placed as far as possible at the ends of the galleries of study, and by consequence at the opposite ends to the junctions with the centre. One of the workshops should be large enough to contain a table on which could be laid out the largest fabrics exhibited.

This museum, whose area should be capable of containing all that is enclosed by the Louvre, would have, in consequence, a great extent. It would not be possible to find a site for it at the centre of capitals like Paris, London, or Berlin; also we visualize it as placed rather in one of those wide and spacious thoroughfares that every great city possesses.

If it is a question of Paris, we should choose the Bois de Boulogne, of which the extent would accommodate, besides the principal buildings, gardens in which would be erected satellite buildings for certain collections, as well as architectural monuments, sacrificed to the needs of present-day life and to be reconstructed in these gardens. To this collection we should add vast galleries to house the annual salons (nursery-grounds of our museums). One would obtain thus a veritable citadel of art—a place of beauty and of study.

The site chosen, and the programme determined, what must be the specific qualities of the museum building which is to be at once a place of exhibition and of preservation?

Good exhibition demands good lighting.

Good preservation demands constant temperature and humidity, for it is differences of temperature that produce expansion and contraction, the principal cause of the ruin of human works.

A museum, then, must be a building well lit and well protected against external variations of temperature and moisture of the air.

It must be, besides, of a solidity amply sufficient to preserve and hand on to future generations its treasures.

To what *material* should we turn to construct this indestructible building?

We think it is not rash to affirm that the most durable material is concrete, which continues to harden, while the hardest stones—granite, for example—lose their nature in time. There are in Egypt cements which date back to before 3000 B.C. The Labyrinth was thus constructed, and the Pyramid of Ninus rested on a vault of concrete, pierced with channels lined with pottery to drain away the gauging water.

One can see in Roman ruins concrete in great masses which, originally, could only have played a feeble part in their composition, but today defy the pick.

Does one not see, in these same Roman ruins, massive masonry, in which the mortar joints project far beyond the brickwork, this last having been corroded by the weather, while the mortar, on the contrary, having grown harder, has not diminished?

From the Middle Ages there remain, in the city of Carcassonne, lintols of concrete which are still intact while many of those of stone are broken.

It is, then, to concrete and to reinforced concrete that we must look to form the framework of our museum.

It would be walled in reinforced concrete; that is to say, it would be made of columns, widely spaced,

supporting beams and slabbing; thus would be formed the whole of this system that we call the framework.

The composition of this framework is very important, for it is to the structure what the skeleton is to the animal. Just as the animal's skeleton, rhythmical, balanced, symmetrical, contains and supports the most varied organs, most diversely placed, so the framework of our structure must be composed, rhythmical, balanced and symmetrical, and it must be able to contain the most diverse organs demanded by the programme.

Here we touch the very foundation of architecture. If the bones of the building are not fit to remain in evidence, the architect has ill-fulfilled his mission.

The material used for clothing and filling in must complement the framework, but in order not to conceal it, a beam must show itself where there is a beam, a column where there is a column.

Such dispositions will avoid disagreeable surprises on the day when from expansion, contraction, and settling, the bearing members affirm their presence. Architecture makes beautiful ruins. We must not take liberties with the laws of construction if we are not to take liberties with the conditions of the programme. A study of the conditions of the programme and of construction will nourish the imagination of the architect just as the restrictions of verse inspire the poet.

Since the conditions of the programme of a museum include many features common to other buildings, we shall not enumerate them all: that would be veritably to write a specification. We will only concern ourselves with those that are entirely specialized for this style of building.

It is the quality of the lighting which will make a good museum.

Must all parts of the building be lit in the same way? We do not think so.

Paintings, since they often present reflecting surfaces, must be lit from above.

Sculpture will be better lit by a light falling slantwise from above.

Researches made on the occasion of the installation of the La Tour pastels at the Louvre have led to the following observations:

1: Every illuminated object becomes itself a source of light, and its image is reflected proportionately to the relative illumination of that object and to the co-efficient of the reflecting surface.

2: Dark colours absorb light, while light colours and polished surfaces reflect it.

The first observation means that if you walk about in a light dress before a picture, itself dark and brilliant, you will create reflections.

From these two rules it may be concluded that to avoid seeing upon pictures—above all, those that are glazed—reflected images of spectators and surrounding objects, these spectators and objects must be in a reflected light of small intensity in marked contrast with the direct light falling on the picture.

It should be added that this direct light should strike the reflecting surface, which is the picture, in such a manner that reflected rays do not reach the spectator's eye, but rather his feet.

Applying these rules to the La Tour Exhibition, the windows were furnished with prismatic glass, to throw the light direct onto the walls from below. Further, these windows were obscured down to the height of a tall man, the floors blackened and the walls painted in dark tones, as neutral as possible. Finally, all polished or reflecting surfaces were suppressed. These measures gave excellent results. The La Tours, all under glass, appeared in all their lustre; but the whole remained cold. It was more like a laboratory than an exhibition salon.

All the precautions taken for the La Tour Exhibition are rendered necessary by lateral lighting—at least from windows coming down to the height of a man; they become needless if the light falls from the ceiling.

It is beyond doubt that the best lighting for a collection of paintings is that coming from above—provided that it does not fall from so great a height as to lose its intensity, for the intensity diminishes as the square of the distance. That is to say that if one doubles the height of a room, its light will be four times less bright.

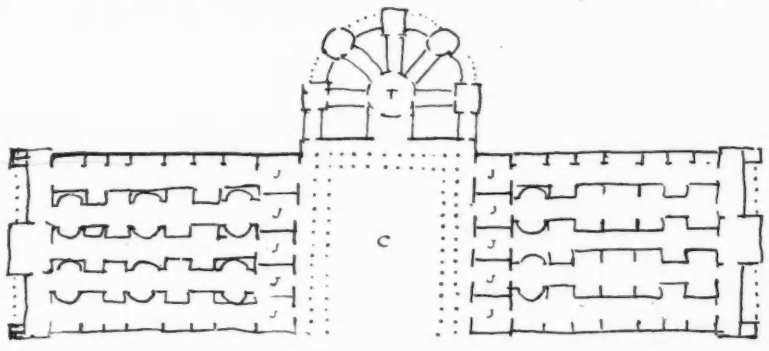
It is necessary therefore to proportion the height of the rooms to the dimensions of the works exhibited; that is to say, we must have rooms of varying heights all lit from the top if possible, or by lateral windows placed near to the ceiling.

The defect of toplights is the difficulty of cleaning. One must therefore provide easy access, by numerous gangways, with trap doors above the glazed ceilings. The skylights must have steep slopes of 60°. This disposition, besides giving the maximum of light, retains little dust that rain will not wash away.

For frequent cleaning, terraced roofs recommend themselves on account of their ease of access.

The lateral windows as well as the roof-lights must be fitted with blinds for moderating sunlight, and with swing or sliding panels controlled mechanically, electrically, or by some other ready means, for securing complete darkness as long as possible.

Darkness is one of the essential conditions for preserving all substances.



"Our museum would be composed essentially of a central space (C), surrounded by a double colonnade—the first open, the second closed; it is off the second that the junction halls (J) with the galleries of study would be found. . . . At the inner end, one would find a vast rotunda (T), from which would radiate short galleries . . . the head or heart of the museum."

It is the darkness and the dryness of the air of the Egyptian tombs which have preserved to us in all their freshness the objects and paintings they contained.

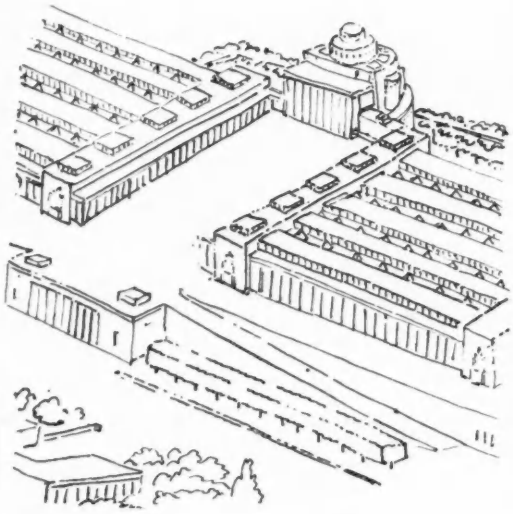
We must, then, be able completely to darken our galleries and use them as little as possible.

The question has often been raised of illuminating museums in the evening, and certain towns—Lyons, for instance—have done this.

Besides being far from having at our disposal perfect artificial lighting, we see many picture dealers content to utilize it for dark corners.

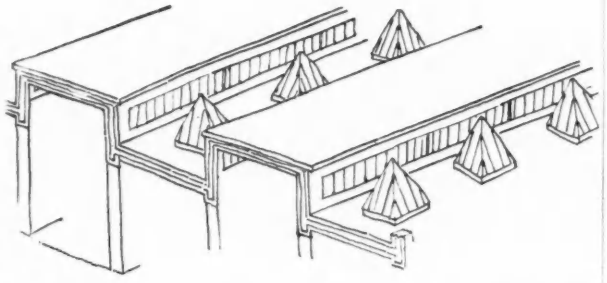
If a museum is to be inspected at night we must see to it that the artificial light is sensibly from the same direction as the natural light. To obtain this result we shall place batteries of electric floodlights all round the glazed ceilings and below the lateral windows.

The light given by these floodlights could be entirely reflected—this would



" It is to concrete and reinforced concrete that we must look to form the framework. . . . The composition of this framework is very important. . . . If the bones of the building are not fit to remain in evidence, the architect has ill-fulfilled his mission. . . . For frequent cleaning terraced roofs recommend themselves. . . . The skylights must have steep slopes of 60°. This disposition, besides giving the maximum of light, retains little dust that rain will not wash away."

" Our walls must be formed of at least five layers, separated by voids. . . . The slabs of the terraced roofing must have the same number. . . . The glazed ceilings and lateral bays must be fitted with double glazing."



be the least objectionable method, but by far the most costly—otherwise one must be content with semi-direct methods; that is to say, light reflected and diffused at the same time—reflected by surfaces of suitable angle; diffused by frosted or special glass placed in front of the lamps.

The variety of electric light which least affects colour is that obtained by placing daylight lamps and high-voltage lamps alternately. The daylight lamp is bluish, the high-voltage lamp reddish. The light so produced is unfortunately far enough from sunlight—it is, however, what has up to the present given the best results.

We have said above that, together with light, constant temperature and humidity are necessary for the preservation of the treasures in our museums.

It is, indeed, as we have already said, by differences of temperature, giving rise to successive expansions and contractions, that in the long run all human works perish. It is the cause of the cracking of paintings, faience, enamels, etc.

The dryness of the air is equally a condition of the preservation of matter : we repeat that, if it is the darkness of the Egyptian tombs that has preserved the freshness of their pictures, that preservation is equally due to the equable temperature and dryness of the air obtaining in them.

Brought back to the light and air of our climates, how will the treasures from the Tombs of the Kings endure ? We have had one experience that is not reassuring. Descending into one of these tombs, we collected a fragment of a coat of paint of a beautiful red colour. After having wrapped it in paper, we put it in our pocket. On returning to the hotel, we wished to examine this fragment, and to our great surprise we discovered that this painting, which in the tomb had been preserved intact more than 4,000 years, had not resisted a sojourn of an hour or two in our pocket, and had crumbled to dust.

The temperature of the museum must therefore be maintained constant, and its air dry. Constant temperature we should obtain from the constitution of the walls and the roofs of our building. Our walls, to insulate in the measure needed, must be formed of at least five layers, separated by four voids of four centimetres; these voids to be entirely enclosed, so that the air they contain does not set itself in motion.

It is recognized that walls so constructed are better insulators than the thickest masonry. The five layers can be constructed of the most ordinary materials—bricks, tiles, sand or breeze slabs. They must be protected from the ground by the introduction of dampcourses of asphalt or layers of concrete and of treated cement.

The slabs of the terraced roofing must have the same number of layers and voids as the walls. The glazed ceilings and lateral bays must be fitted with double glazing, separated by a damping space of four centimetres.

A building thus constructed will vary little in temperature, and perfect uniformity can be secured by slight heating in winter time.

Temperature, like the condition of humidity of the air, can be maintained constant by mechanical means. Air dried or moistened, heated and filtered, then pumped in through ducts; that is the latest and most popular system.

But for these artificial methods we prefer to substitute natural means which, without human intervention, will secure the perpetuation of the gathered treasures; a system of ventilators, judiciously placed and orientated, should suffice.

Visiting a museum is always fatiguing, and this fatigue arises mainly from the nature of the flooring, which is usually of waxed parquet.

In our opinion the preference should be given to parquetry covered in the gangways with paths of carpet, linoleum or india-rubber.

A question next in importance after lighting is that of the nature of the partitions on which paintings will be hung.

Their values will be best realized when they are affixed upon surfaces the nature of which is not met with in their composition—such as stone, wood and fabrics.

Should the museum be decorated ? We do not think so. The aspect of the galleries should not vie with the works exhibited.

The museum should present itself as a casket strongly moulded by the framework of the building, of which the subdivisions should serve to separate the works, rendering them amenable to examination and study.

The central space or place of recreation and pleasure, in which the pictures and sculpture will not be chronologically arranged, could assume for its construction the more expensive building materials, fit frame for the treasures exhibited, but without departing from the maxim of Fénelon in his address of welcome to the Académie Française : " No single part destined solely for ornamentation should be admitted in a building, but, seeing always its fine proportions, one should turn into ornament all the parts necessary to support the building."

[*This article is translated, by permission, from* Mouseion, *the bulletin of L'Office International des Musées, Paris.*]

QUESTIONS THAT ARISE

Household Pests

P. E. P. writes: "*In a house I am proposing to alter for my own use, I have discovered a considerable number of bugs and black beetles. Can you please tell me (a) if there is any method of getting rid of them beyond the usual fumigation, which, in this case, the Borough Council will undertake; and (b) is there any likelihood of a reappearance of these pests after treatment?*"

The efficient control of black beetles can only be accomplished by exercising the most scrupulous cleanliness in situations where they are likely to occur, and following systematic hygiene in regard to all stores that may attract them. Their usual hiding-places are behind stoves, fixtures, skirting-boards, and detached wall-paper. In a place where they have been long established, the only really thorough first measure is fumigation with a toxic gas; when the trouble is behind stoves, a very useful eliminator is to spray carbon tetrachloride. This must, however, be most carefully used and not inhaled.

Afterwards the making good of all decaying wall-surfaces, boarding, and floorage must be undertaken. In the case of ordinary dwellings where black beetles are found persistently to congregate behind the wall-paper, the best plan is to remove the wall-paper altogether, and use coloured distemper until the pest has vanished. Wooden floors and skirtings which afford retreats can be made untenable by the simple process of sprinkling and working into the crevices a mixture of equal parts castor sugar and borax, or a powder composed of sodium fluoride 10 parts, ground rice 8 parts, and calcium phosphate 2 parts.

Regarding bugs, rather sweeping statements are sometimes made that the bed-bug is only found in the poorest and most uncleanly houses; but this is not entirely the case, because the insect is not a feeder on dirt. The additional prevalence of these blood-sucking parasites in an unswept house is as much due to immunity from disturbance as anything else, for if they cannot find sufficiently good "fare" in such places they will pass out along the waterpipes or such other means of communication, and try their fortune elsewhere.

To prevent these insects from hiding in bedsteads, the framework, particularly the movable joints, should be brushed over with turpentine, the odour of which will warn them off effectively; but, in an infested room where they have been established for some time, a sulphur candle or other means of fumigation must be resorted to, to clear out the pests from inaccessible places. This treatment should be repeated after a fortnight, in order to destroy any young which may have hatched from eggs in the meantime, as the eggs when first laid are coated with a varnish film by way of protection, and the fumes would not penetrate this.

When bugs are in the floors, a useful sweeping compound is made of sawdust thoroughly moistened with a mixture of crude carbolic and paraffin in equal parts.

[The above remarks have been extracted from Bulletin No. 5 of the College of Pestology.]

Roof to Church Hall

S. K. H. writes: "*I enclose a sketch detail for a proposed roof to a church hall, and should be glad of your expert's opinion on the following points: (1) Is there any likelihood of the feet of the main rafters spreading? (2) Is it necessary to strengthen the joint at 'A' in any way, and if so, how? (3) Is the tie rod above the tie beam necessary? The trusses are at 10 ft. centres, to be of Columbian pine, walls of building 14 ins. thick, with 18-in. by 18-in. piers to trusses. It is particularly desired that no tie rods show under the plaster ceiling.*"

The roof truss for a church hall is quite a strong construction as shown, and there should be no danger of the feet spreading. While the tie rod above the tie beam is not strictly necessary, it is desirable, in view of the improbability that thoroughly dry timber can be obtained.

The opening of the joint at *A*, through shrinkage, is corrected by the tie bolt. In building up the 4-in. rib it should be constructed with the maximum length across the joint *A*, as marked on the tracing, and instead of the top $\frac{3}{4}$" bolt being in the position shown, it is desirable to put in two in the place of one.

Otherwise the construction can be considered very sound. A. H. H.

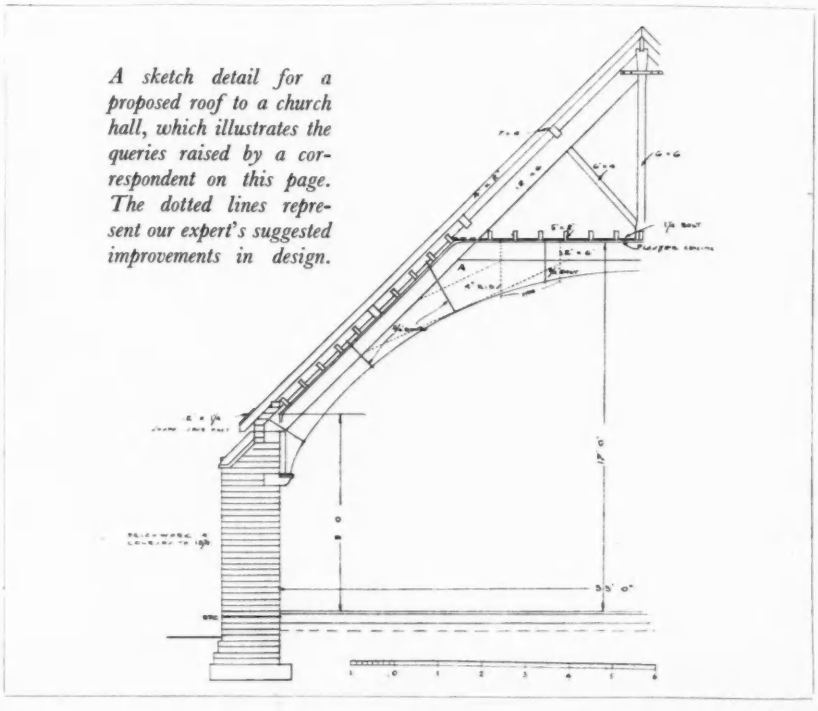
Electric Light Main

S. C. writes: "*A builder has included an extra of five pounds in his account for 'charges of electric light company for connections to main.' In his contract he was asked to 'connect to the main of the electric light company, and pay all fees, if any.' He claims this extra because he says the position of the house has been altered on the site, but with the foregoing clause in the specification I do not feel inclined to allow an extra.*"

Most electric supply companies state that only a certain number of feet between the main and the meter will be laid free and the additional length required to make a connection is charged at so much a foot.

If the altered position of the house has increased the length of the cable from that shown on the contract drawings, the builder is entitled to an extra.

Your correspondent, however, before paying or authorizing payment, should see the receipt from the electric company, and check the length charged for against his claim. D. E. W.



A sketch detail for a proposed roof to a church hall, which illustrates the queries raised by a correspondent on this page. The dotted lines represent our expert's suggested improvements in design.

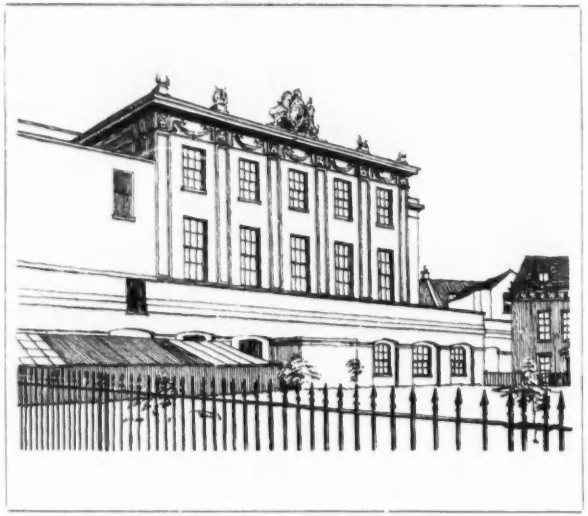
THE SKETCH CLUB

TENTH SESSION

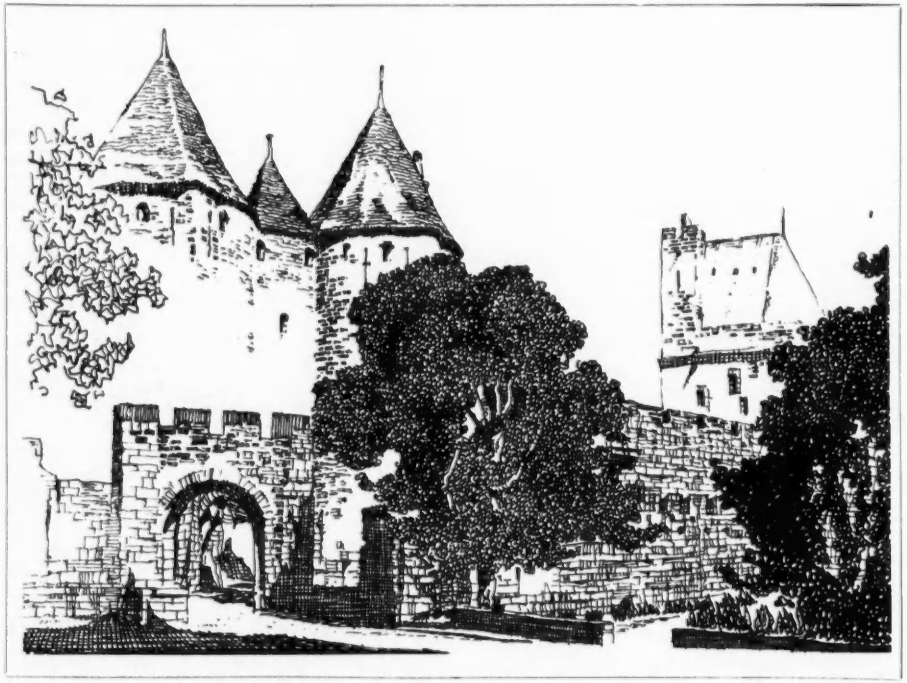
HEREWITH are exhibited more of the drawings submitted in the first of the Holiday Sketches Competitions, organized by THE ARCHITECTS' JOURNAL *as an outcome of the Sketch Club—a final selection this time.*

The second Competition—that for records of holidays taken in July and August—has now closed, and once more the task of adjudication is in hand. The award will be announced in the issue for September 10, a fortnight hence, and that being a Sketch Club issue, it is hoped to show the winning subjects at the same time.

Meanwhile, there is yet a third, and last, chance for intending competitors; September 15 is the final sending-in day. Rules are printed on page xxxviii, together with motto labels the use of which is obligatory.



The Theatre Royal, Bath.
By George Wilde (Pencil and grey wash)



Les Tours Narbonnaises, Carcassonne, France
By F. G. Lodge (Pen on tracing paper)



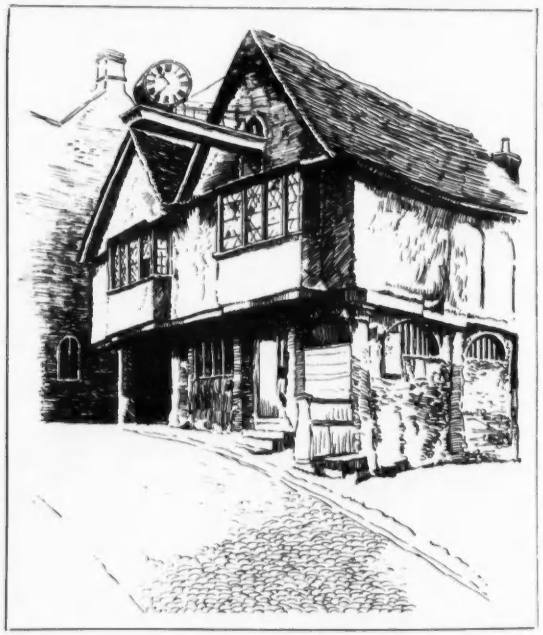
Wittington Village, Gloucestershire
By C. G. Beams (Pen)

The Tolsey, or

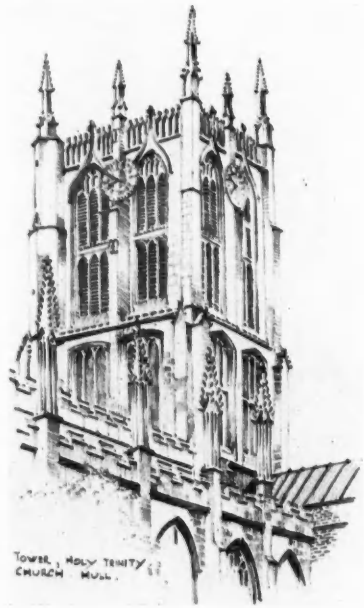
Old Houses in the

Les Tours Narbonnaises, Carcassonne, France
By F. G. Lodge (Pen on tracing paper)

Wittington Village, Gloucestershire
By C. G. Beams (Pen)



The Tolsey, or Town Hall, of Burford, Oxon.
By C. G. Beams (Pen).



The Tower of Holy Trinity Church, Hull.
By Martin H. Lister (Pencil).

Old Houses in the Fish Market, Folkestone.
By G. V. Charles (Pencil).





The West End of S. Jossé, Brussels.

LondonRoad, Bradford-on-Avon, Wilts. Many exiled Fleming weavers set up their looms here, and several of the houses betray Flemish influences.
By F. Palmer Cook (Pencil).



By Vincent Warrilow (Pencil).



Bridge with chapel, Bradford-on-Avon; one of three in England. Originally a pack-horse bridge, it was widened in the XVII century.
By F. Palmer Cook (Pencil).

LITERATURE

MORE BUILDING THAN DOLES

NORWICH Priory belonged to the Benedictine Order, and the monks numbered from sixty to thirty. About twelve of these were appointed to staff duties, such as the Master of the Cellar, who was really storekeeper; the Sacrist, who was in charge of the fabric and services of the cathedral; the Cellarer, who was responsible for the cooking, and the Chamberlain, whose duty it was to see to the clothing.

The total revenue of the Priory was about £2,500, equal to £50,000, present day. The greater part came as tithes from the churches and manors of the Priory, and these churches and manors were divided amongst the officers as sources of income which enabled them to meet their expenditure. Each officer kept an account of expenses and outgoings, and it is these accounts, dating from 1270, which have come down to us as "rolls," stored in the Muniment Room at Norwich Cathedral, and are now tabulated and brought to our notice in Dr. Saunders' book.

Amongst the functionaries of the Priory there was none specially set aside as architect or clerk of works, but each of them must have had some knowledge of building, for each had parts of the priory and (or) churches and manor buildings in his charge. It is true that at the church was the priest, and at the Grange the bailiff, but there was constant intercourse between the Priory staff and these outlying dependencies.

The Master of the Cellar bought the building materials which could not be produced on the estates, and issued them from his store as required. His account for the year 1274, following the great fire at the Priory, is full of items for building purposes. "The Carpenter £14 for going to Hamburg to buy timber." This is brought to Yarmouth at a cost of £4 17s. 6d., and then to Norwich for 6s. 6d. "Base and his fellow" journey to Caen to buy stone; and seven loads costing £3 1s. 10d. are shipped to Yarmouth. Much stone was also bought from merchants at Yarmouth; reeds were purchased for plastering; iron, and coal for smelting it, is entered in 1285, and Spanish iron in 1316. Nails are of many kinds, as: Splentnayle, tingenayl, midelspykynge, lathenayle. A large amount of timber is bought at Yarmouth and generally is from Riga and Austria.

The Communar, another official, was responsible for the building of the cloisters. The columns, bases, and coigns were delivered wrought and moulded to Yarmouth and brought up the Yare in the Prior's boats, a testimony to the completeness and accuracy of the drawings. But who made these?

Dr. Saunders has given us a fascinating picture of the business side of a religious house. It is interesting to note that more money was spent on building than in doles, surely an excellent proceeding. P. M. S.

An Introduction to the Rolls of Norwich Cathedral Priory. By H. W. Saunders, M.A., D.LITT., F.R.HIST.S. Jarrold and Sons. Price 10s. 6d.

THE ELECTRIC WIRING OF BUILDINGS

ELECTRICAL work provides a very interesting subject for study, but I feel that too little is known regarding the manner of its execution by the architect, who is inclined to throw much more enthusiasm into that delightful finishing touch, the selection of fittings. The intricacies of wiring systems for power, heat and light are probably quite safe in the hands of a really good specialist, but to lean too much on the specialist, without a fair knowledge of the subject, is a source of weakness in the architect's armour.

Mr. Raphael, in a short preface, refers to the noble self-sacrifice of reviewers for the technical press, who are (sometimes) forced to read literature from cover to cover. In this case he need have no fear that they will not do so, for the book is admirably produced and written in such a capable form that even the most elementary portions will not be passed over in haste. Included in the pages are over one hundred and fifty illustrations, mostly line drawings, with the addition of a few photographs. The drawings, particularly, are well executed, down to the smallest detail.

I am pleased to observe in a chapter on wiring that Mr. Raphael supports the use of screwed conduit. I always feel that real value is obtained by the use of this tubing, especially for sunk work, as against grip fittings and lead-covered cable, despite the extra expense involved.

The chapter on the layout is instructive, but I have not myself experienced such a high percentage as Mr. Raphael alleges of installations impaired by the lights being placed in wrong positions, where the work is under the control of an architect. I agree that the use of the combined switch and wall-socket at skirting level for electric fires is a matter more of habit than of convenience. There is no real need to place the switch so low, when the extra cost in placing it at a higher level is negligible. W. A. D.

The Electric Wiring of Buildings. By F. Charles Raphael. London: Sir Isaac Pitman and Sons, Ltd. Price 10s. 6d. net.

TOURING LONDON

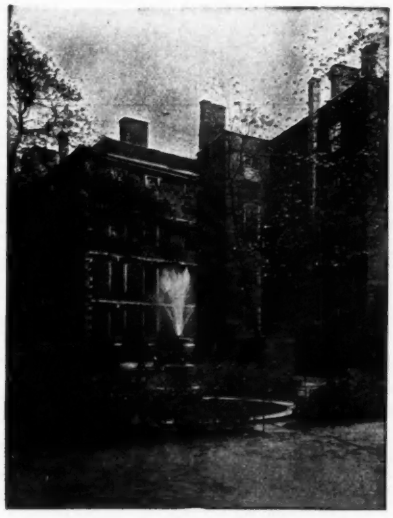
SO vast are the changes that have been and still are taking place in the face of London by reason of reconstruction and rebuilding, that the old City begins to wear an aspect which is



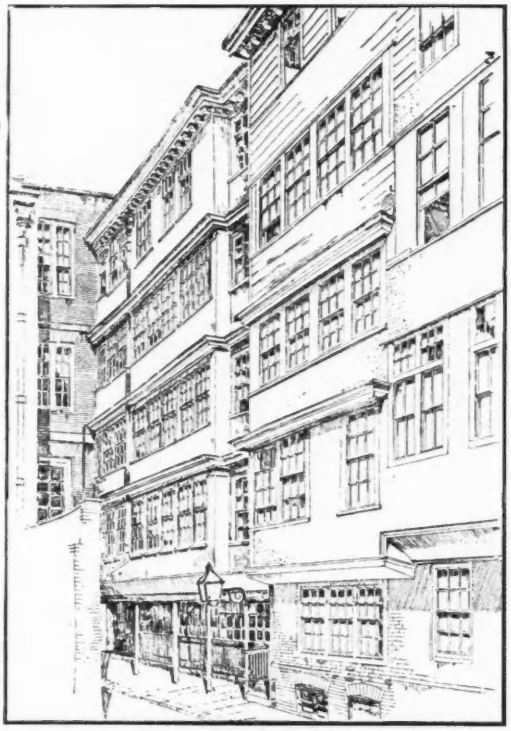
The Great Hall, Charterhouse, E.C.



East India Dock Gate, S.E.
(*From* Touring London)



Fountain Court, Temple, E.C.



Middle Temple Lane, E.C. Drawn by Roland W. Paul, F.S.A.

(*From* Touring London)

almost as unfamiliar to its older citizens as to visitors.

The city is fast becoming modernized; new buildings are springing up everywhere; we are emerging from a period when events moved so slowly as to be hardly noticeable. Today, few qualms are felt in destroying buildings associated with famous persons or events; our more sentimental feelings are sacrificed on the altar of progress.

If we wish to discharge a duty few Londoners perform, and tour the ever-changing metropolis, it is as well to do so on a set plan. In *Touring London*, Mr. W. Teignmouth Shore's contribution to the many guide-books on London, the author has set down, in concise epitome, an account of how to make a systematic tour of this fascinating city. Mr. Shore has mapped out four routes on the basis of some of the main thoroughfares, taking the points of the compass in turn. The starting point of each is Trafalgar Square, and, with one exception, the sightseer returns there; the remaining tour finishes at the Tower of London. He also shows us the picturesqueness of the river in a chapter entitled "Roving and Rivering."

Mr. Shore often strays from the busy thoroughfares to visit places hidden away unchanged, churches and dwellings still secluded and pleasant, not overpowered by present-day architecture. As you travel with him along the route, he conveys much interesting historical information and many notes on associations with famous folk and various ages of the recent and remote past.

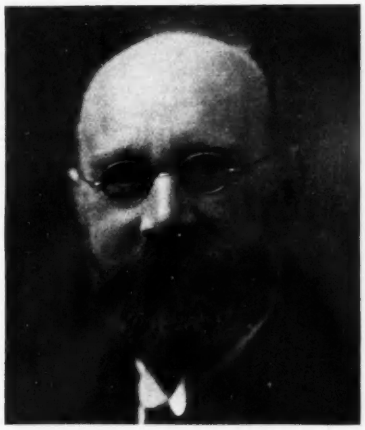
The book is fully illustrated by twenty-five plates reproduced by the half-tone process from photographs and etchings; also reproductions of sixteen drawings by well-known draughtsmen. A foreword has been contributed by the Rt. Hon. John Burns, who rightly commends it to the many lovers of London.

Touring London. By W. Teignmouth Shore. London: B. T. Batsford, Ltd. Price 4s. net.

OBITUARY

JOHN TODD: 1867–1930

We regret to record the death of Mr. John Todd, who, following a seizure on August 16, passed away in Staines Hospital on Thursday last.



The late Mr. John Todd

Mr. Todd, it will be recalled, created a sensation in architectural circles when, as Dangerous Structures Surveyor to the Corporation of London, he served a "dangerous structure" notice on the Dean and Chapter of St. Paul's in December, 1924, calling upon them to make the cathedral safe. He pointed to the condition of the dome, and advised that it should be lifted on temporary pillars owing to the dilapidated conditions of the eight supporting piers. Other experts, however, were called in by the Dean and Chapter, and they suggested that certain work should be carried out to the defective piers. A statement was made that structural work would be executed, and the "dangerous structure" notice was suspended by a special committee of the Corporation. Mr. Todd, however, said it was not an adequate remedy, and stated that the trouble would occur again in twenty-five years' time. Mr. Todd's action in serving the notice did not become generally known until March, 1925, when he resigned the post of dangerous structures surveyor while retaining his other office of district surveyor. He was born at Hull sixty-three years ago.

SIR ASTON WEBB'S FUNERAL

Among those who applied to the R.I.B.A. for tickets to attend the service in St. Paul's Cathedral for the funeral of Sir Aston Webb were:

Sir Henry Tanner, Sir A. Brumwell Thomas, Col. Wilfred J. Hardcastle, Col. W. H. Hatchard Smith, Messrs. J. Alfred Gotch, PP.R.I.B.A., Henry M. Fletcher, VP.R.I.B.A., E. Stanley Wall, PVP.R.I.B.A., F. Winton Newman, P.P. Architectural Association, Stanley Hamp, P.P. Architectural Association, J. Arthur Smith, President of the Hampshire and Isle of Wight Architectural Association, J. Goddard Wilson, W. Scott Deakin, E. W. Marshall, W. Henry White, Charles Woodward, E. C. P. Monson, Edward Warren, Percy H. Adams, A. D. Reid, A. B. Hayward, W. H. Hobday, W. Campbell Jones, E. Vincent Harris, Percy J. Waldram, P. E. Palmer, Arthur E. Henderson, J. Hatchard Smith, Sydney Tatchell, Geoffrey C. Wilson, Fredk. Chatterton, C. W. Biddulph-Pinchard, D. Barclay Niven, W. A. Pite, Louis Ambler, H. Gregory Montgomery (HON. A.R.I.B.A.), Clyde Young, T. Raffles Davison (HON. A.R.I.B.A.), John E. Sears, Alfred Cox, Noel Heaton (HON. A.R.I.B.A.), Edward Maufe, E. C. Frere, Edward Unwin, E. J. W. Hider, A. R. Conder, George A. Hall, Howard Robertson, H. Douglas Kidd, Arthur Ashbridge, Lawrence A. D. Shiner, H. Edmund Mathews, C. Ernest Elcock, S. Pointon Taylor, Charles Holden, Francis Hooper, Geoffry Lucas, J. Harold Gibbons, R. Goulburn Lovell, G. A. T. Middleton (HON. A.R.I.B.A.), E. J. Sadgrove, E. A. D. Tanner, F. E. Towndrow, Herbert Shepherd, C. E. Bateman, W. E. Riley, Claude Ferrier, A. R. Myers, C. D. Spragg (Asst. Secretary, R.I.B.A.).

Mr. Robert Banks-Martin, of Gracecourt, Great Nelmes, Hornchurch, architect, left £4,253 (net personalty).

Mr. Vernon March, of Goddondene Farnborough, Kent, sculptor, left £1,772 (net personalty £1,440).



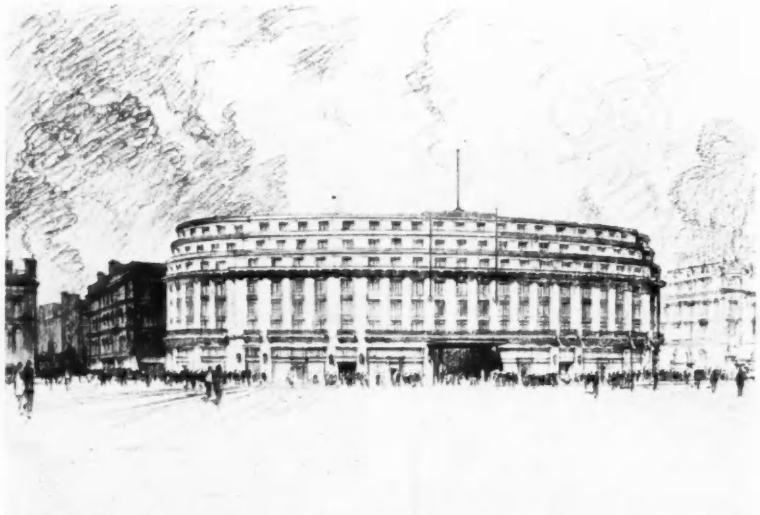
A perspective of Sir Reginald Blomfield's scheme for the widening of Park Lane, Guildford Street, and Upperhead and Lowerhead Rows, Leeds.

ARCHITECTURAL CONTROL IN ENGLISH TOWNS

Bulletin No. 23 of the International Federation for Housing and Town Planning contains a lengthy report dealing with architectural control over town development in Great Britain, and interesting instances of control in various towns are quoted. Extracts from the report, which is printed in English, French and German, are given below.

ALTHOUGH there is no Act conferring general powers on all English local authorities to control the elevations of buildings, such powers can be obtained where the buildings come within the area of a town planning scheme; they have also been obtained by individual local authorities by local Acts (Acts passed by Parliament in respect of a particular town or locality) in connection with street widening and town improvement schemes.

In some cases where a public authority have had control, as owners of the land, e.g. Regent Street, London (owned by the Crown), and Kingsway, London (owned by the L.C.C.), it is noticeable that while many fine buildings have been erected no general harmony of design has been insisted on. This was not so a hundred years ago, when the buildings fronting Regent Street were designed by Nash and formed a harmonious composition. Recent events at Leeds, Bradford, Hull, and elsewhere indicate that the lapse of public concern in such matters is being rectified.



Mr. C. Cowles-Voysey's perspective sketch for the Bradford Central Area Improvement Scheme, reference to which is made in the accompanying article.

Street Widening and Improvement Schemes

In 1925, when the Leeds Corporation secured by Act of Parliament the right to make an important street improvement, they also got powers to buy extra land along the route of the improvement, and instructed Sir Reginald Blomfield, R.A., to prepare designs for the façades of the buildings to front the street. Designs were prepared not only for buildings on frontages to be sold by the Corporation, but also for buildings on land the Corporation had not acquired. Similarly, the Bradford Corporation promoted a competition in 1929 for plans and elevations for rebuilding an important island site they acquired in the central area of the city.

For many years past Parliament, in passing local Acts, has permitted provisions to be included giving the local authority control over elevations of buildings erected fronting on streets that are widened.

For example, in 1899 Parliament passed a local Act for an improvement scheme in Bradford. This Act provided that the elevations of all buildings to be erected in streets that are made, widened, extended or improved under the scheme must be submitted to the Corporation for approval. It also gave similar control over alterations to existing buildings with an external wall fronting on or toward such streets, if the external wall was being altered to the extent of one-half. Similar local

Act powers are possessed by several of the larger local authorities.

In 1913 the Bradford Corporation obtained powers from Parliament to carry out a large improvement scheme in the central area of the city, including power to "lay out and deal with the area and to divert, alter and rearrange the public ways therein." They were also entitled to sell or lease land in this area for the erection of buildings of such size, class, plans, elevations, heights and number of stories as the Corporation thought proper. By an Act passed in 1928 these powers were extended to any lands at any time acquired by the Corporation in connection with the construction of any new street, or the widening, alteration, or improvement of any existing street.

General Powers under Local Acts

In 1921 the Liverpool Corporation obtained the following powers by a local Act:

(1) Any person intending to erect a new building any elevation of which will front to or abut upon any street must submit to the Corporation a plan of the elevation and any other plans that may be required. The building may not be erected until the elevation has been approved by the Corporation.

(2) Appeals against withholding of approval by the Corporation are determined by the Minister of Health or by a person to be nominated by him; the decision is final.

(3) Any person offending against these provisions is liable to a fine not exceeding five pounds, plus a penalty not exceeding two pounds per day during the period of the offence.

In 1925 the Borough of Hastings obtained by a local Act the power to make bylaws requiring elevations to be submitted to them for approval (normally the plans only, not including elevations, have to be submitted to local authorities for approval). The Act provided for an appeal to the Minister of Health, upon which the Minister, or a person nominated by him, must adjudicate within one month.

In 1926, the Corporation of the City of Bath (a city with much fine street architecture) were authorized by Parliament to make bylaws requiring elevations to be submitted to them. These bylaws provided that where the Corporation considered that the height of a proposed building or addition or chimney or the design or the materials to be used would seriously disfigure the city, they might refer the elevations to an advisory committee. (A wooden hoarding used solely for billposting is not covered by this clause.) The advisory committee comprises a Fellow of the Royal Institute of British Architects, a Fellow of the Surveyors' Institution, nominated by the presidents of the respective institutes, and a Justice of the Peace, nominated by the Corporation. No member of the Corporation may be a member of the committee. The advisory committee must make their decision within one month and can approve or disapprove the elevations submitted to them. The penalty for non-compliance with a decision of the Corporation or advisory committee is a fine not exceeding £5, plus a penalty not exceeding £2 per day. The costs of any reference to the advisory committee are paid as the advisory committee may decide.

The composition of the advisory committee is apparently intended to give weight to the combined views of a man skilled in design (architect), a man with knowledge of the value of property (surveyor), and a non-technical man of public spirit (the justice of the peace).

The Bath bylaws were approved in July, 1927. By the end of December, 1929, two cases had been referred to the advisory committee: in one case the proposed elevations were approved, and in the other disapproved. The fact that there were only two cases does not indicate a failure of the Act, but rather that in the majority of cases the city engineer has been able to deal with matters by persuasion and to get the elevations put right before they were formally submitted to the Corporation. Similar powers have since been given by local Acts to other local authorities.

The Brunswick Square and Terrace Act, 1830, is an interesting example of permanent control by a private Act. It provides for the management and maintenance of the squares and terraces of the Wick Farm Estate, Hove. One of the clauses provides for preserving uniformity of appearance in the front façades of the houses erected and to be erected. It governs such matters as front railings and balconies; it also requires the fronts of the houses to be covered with cement of a uniform stone colour and the front elevations to be maintained unaltered and without variation. The outsides of the houses must be painted in uniform colour every three years, and the penalty for not doing this is a fine of £2 per week. The Act was first administered by specially appointed Commissioners; their place has now been taken by the Hove Town Council, and the borough engineer selects the colour and issues the notices to the owners to paint the outside of their premises accordingly.

Control under Town Planning Powers

The first Town Planning Act (1909) empowered local authorities to make schemes "with the general object of securing proper sanitary conditions, amenity and convenience" in connection with the laying out and use of land. It exempted local authorities from liability to compensation in respect of provisions that, *inter alia*, prescribed "the height or character of buildings." The Ruislip–Northwood Town Planning Scheme (passed in 1914) included a clause controlling elevations (as an essential part of the character of buildings); but no general disposition was shown by other local authorities to copy this example.

For some years after the end of the war the authorities were chiefly concerned in getting as many houses erected and as cheaply as possible. Latterly the spread of ugly buildings has roused public opinion, and the Ministry of Health have prepared and issued a model clause for use in town-planning schemes. This clause largely copies the procedure approved by Parliament in the local Act of the Bath Corporation, described above. The words "seriously disfigure" are repeated, which indicates that local authorities are only expected to intervene when serious issues are involved.

The provisions can only be applied to an area for which a town-planning scheme has been made or is being prepared; and the Town Planning Acts apply in general only to land that is in course of development or appears likely to be used for building purposes. A few local authorities, e.g. Newcastle, Blackpool, Birmingham, Chester, have obtained powers direct from Parliament to apply the Act to all land, whether built upon or not. The Town Planning Act also gives power to the Minister of Health to permit a local authority to prepare a town-planning scheme ("prescribing the space about buildings, or limiting the number of buildings to be erected, or prescribing the height or character of buildings") for any area, whether built upon or not, if it appears to him that a scheme is expedient for preserving the special architectural, historic or artistic character of the locality. The Minister has already sanctioned the preparation of schemes under these powers for the historic cores of such cities as Canterbury, Exeter, Oxford, Southampton, and Winchester.

The above-mentioned powers enable the *special character* of an historic area to be preserved, i.e. the local authority may control new building and the alteration of existing façades fronting the streets and may form advisory committees to whom such questions may be referred. They cannot prevent decay or demolition so far as inhabited premises are concerned, except by purchasing the property by private treaty.

A county or town council may pay the whole or part of the cost of preserving a monument, whether they have purchased it or become its guardians or not.

LAW REPORTS

AN ALLEGED CONTRACT

Neale v. *Merrett. Chancery Division. Before Mr. Justice Bennett*

THIS was an action by Dr. J. A. Neale, a barrister, against the defendant, a builder, for specific performance of an agreement to sell plaintiff certain land at Corsham, Wilts, for £280.

Mr. Morton, K.C., for plaintiff, said the contract which his client relied upon was contained in the following letter he sent defendant, viz. : "January 23, 1929. I am much obliged and agree your price £280. I enclose a cheque for £80 and will let you have a cheque for £50 on March 1, April 1, May 1 and June 1. Kindly send me a copy of conveyance to yourself." Counsel contended that that letter to the defendant was a binding offer in which defendant must sell the plaintiff half an acre of land for £280.

Mr. Jolly, for defendant, said his client had sold some of the land elsewhere, as in his view the plaintiff had really not bought it.

His lordship said in his view the plaintiff's letter was not an unqualified acceptance of the builder's offer. It was only an agreement that that was the price and the letter then went on to introduce terms as to payment. The defendant returned the plaintiff's cheque. He dismissed the action with costs.

FALSE SALE OF PAINT

London Chamber of Commerce v. *H. Hancock. Merchandise Marks Acts. South-Western Police Court. Before Mr. Cairns*

In this case, H. Hancock, trading as Herbert's at St. John's Hill, Battersea, was charged in a prosecution under the Merchandise Marks Act with having sold paint with a false trade description of white lead paint, and was fined £5 and £5 5s. costs. The prosecution was instituted by the London Chamber of Commerce and was conducted by Mr. C. W. Measor, barrister, instructed by Messrs. White and Leonard.

Evidence was given of an advertisement in *The South-Western Star* for white lead paint, 7 lb. for 3s., and of an order for a tin as so advertised, the pigment in the paint being found on analysis to contain no white lead at all, but to consist of :

53·50	barium sulphate
35·80	calcium carbonate
8·40	zinc sulphide
2·10	zinc oxide
·20	lead oxide.
100·00	

On receipt of a copy of the analysis, Mr. Hancock wrote that: "As we understand you require *white lead paint* and not leadless, we shall be glad to supply same if you return the paint supplied." For the defence it was submitted that Mr. Hancock had acted innocently, having intended the advertisement to be one for leadless paint.

TRADE NOTES

Messrs. Leyland and Birmingham Rubber Co., Ltd., have laid a considerable quantity of rubber flooring at the Carlton Cinema, Essex Road, London, which is shortly to be opened. The entrance hall is laid in buff and black marble, with a black border to harmonize with the existing scheme of decoration. The stairs, passages and landings have been laid with green and black marble. The work has been carried out from the design of Mr. George Coles, F.R.I.B.A.

The latest showhouse, completely furnished and equipped with modern cooking, heating and lighting appliances, has recently been opened on the Elthorne Heights estate. The houses are being built by the Great Western Land Co., Ltd. Berry's bricks are used for the facings, and "Cassac" art permanent flooring in the halls and bathrooms—a jointless flooring claimed to be fireproof, firm and buoyant to the tread.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors, and some of the sub-contractors, for the buildings illustrated in this issue :

Immanuel Congregational Church, Southbourne, near Bournemouth (pages 297–299). General contractors, F. A. Grigg and Sons. Sub-contractors : Thomas Holmyard, carving; Mumford, Bailey and Preston, Ltd., heating and ventilating; A. R. Wilson, electric lighting and telephones for the deaf; C. E. Welstead, Ltd., coloured leaded glass windows; Wake and Dean, and the Parkstone Joinery Co., woodwork; C. E. Bishop, organ; Templeman and Sons, masonry; B. Line & Co., bronze grilles; Archibald D. Dawnay and Sons, Ltd., steelwork; Kinson Pottery Co., burnt bricks.

Farnham Chase, Bucks (pages 300–302). General contractor, H. D. Bowyer. Sub-contractor : Alan G. Wyon, carving; Colliers, bricks and tiles; T. J. Barnes, Ltd., artificial stone; R. E. Pearse & Co., Ltd., patent glazing and casements; Thomas Potterton, Ltd., central heating; Griersons, Ltd., electric wiring and electric heating; J. M. Pirie & Co., Ltd., electric light fixtures; E. H. Samouelle, Ltd., sanitary fittings; Robersons, Ltd., panelling; Samuel Elliott and Sons, antique doors.

ANNOUNCEMENT

Messrs. Marani and Lawson, architects, have taken into partnership Mr. R. S. Morris, B.ARCH. The practice will be carried on under the name of Marani, Lawson and Morris, architects, 38 Bloor Street West, Toronto.

COMPETITIONS OPEN

August 30.—The Carlisle Corporation recently invited British architects to submit designs for the façade to English Street and the Victoria Viaduct, suitable for shops and business premises. Assessor : Francis Jones, F.R.I.B.A. Premiums : £300, £200, and £100. Particulars of the competition, etc., were obtainable from Percy Dalton, A.M.INST.C.E., A.R.I.B.A., City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s. Latest date for submission of designs, August 30.

September 1.—The Bangor (Co. Down) Borough Council recently invited architects or town planners to submit designs in competition for laying out the sea front within the Borough. Assessor : Professor Patrick Abercrombie, F.R.I.B.A. Premiums : £150 and £50 for first and second places, respectively. Copies of the conditions and plans were obtainable on application to J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. Latest date for submission of designs : September 1.

September 8.—The Burton-on-Trent Local Education Authority invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor : H. T. Buckland, F.R.I.B.A. Premiums : £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should be made on or before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Deposit £1 1s. Latest date for submission of designs : October 1, 1930.

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invites architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor : A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs : October 20.

October 30.—The General Building Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums : £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs : October 30, 1930.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office,

Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young Communist Square), and will contain a mass musical stage and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes, 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene of the foundation: "Foundation Hospital of Zagreb." 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, AUGUST 27

ROYAL SOCIETY OF ARTS. At the Imperial Institute, Exhibition Road, South Kensington, S.W.7. Exhibition of designs submitted in the R.S.A. Competition of Industrial Designs. Until August 31. 10 a.m. to 5 p.m. (Sundays 2.30 to 6 p.m.). **10 a.m.**

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Open every Tuesday, Wednesday, Thursday and Friday until September next. 10 a.m. till 5 p.m. **10 a.m.**

SATURDAY, AUGUST 30

Sunrise, 6.8 a.m. Sunset, 7.53 p.m.

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS, 26 Buckingham Gate, S.W.1. Fourteen-day Tour to Madrid, returning to London on September 13.

CARLISLE STREET FACADE COMPETITION. Latest date for submission of designs.

MONDAY, SEPTEMBER 1

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. September 1 to September 6.

BANGOR SEA FRONT COMPETITION. Latest date for submission of designs.

TUESDAY, SEPTEMBER 2

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "The Composition, Mixing, Methods of Application of Concrete and Reinforced Concrete, as used in the Yards, and the Control of Same." By T. R. Grigson, M.INST.C.E. "Some Notes on the Composition, Mixing and Application of Concrete in Engineering Works." By C. J. Jackaman, A.M.INST.C.E.

WEDNESDAY, SEPTEMBER 3

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Pieces in Concrete Piles." By M. J. C. McCarthy, A.M.INST.C.E., A.M.MECH.E. "Stresses in Dams." By S. D. Carothers. "A Study of Plain and Reinforced Concrete Retaining Walls." By Ewart S. Andrews, B.SC., M.INST.C.E. "Reinforced Concrete in Great Britain." By A. Kirkwood Dodds, M.C., M.SOC.C.E. (FRANCE). "Reinforced Concrete in Engineering: Representative Examples of British Practice." By M. Gerard, M.SOC.C.E. (FRANCE).

THURSDAY, SEPTEMBER 4

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Work of the Building Research Station on Small Movements in Concrete." By Dr. W. H. Glanville, B.SC., A.M.INST.C.E. "The Effect of Temperature on Flat Arches Constructed of Reinforced Concrete." By C. S. Gray, B.SC., A.M.INST.C.E. "Temperature and Cement." By Dr. Oscar Faber, O.B.E., M.INST.C.E.

SATURDAY, SEPTEMBER 6

Sunrise, 6.19 a.m. Sunset, 7.37 p.m.

XII. INTERNATIONAL CONGRESS OF ARCHITECTS. In Budapest. September 6 to 13. Opening of International Exhibition of Architectural Designs in the Picture Gallery of the Hungarian Scientific Academy. **10 a.m.**

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. South-Western District Meeting, to be held at Bath.

SIXTH INTERNATIONAL ROAD CONGRESS, to be held at Washington. Until September 11.

TUESDAY, SEPTEMBER 9

ASSOCIATION OF PUBLIC LIGHTING ENGINEERS. Annual Meeting and Conference, to be held at Leicester. Until October 11.

THURSDAY, SEPTEMBER 11

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Furniture." 12 noon. "Italian Decoration." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

FRIDAY, SEPTEMBER 12

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North-Western District Meeting, to be held at Runcorn.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Furniture." By Miss M. Chamot. 12 noon. "Gothic Woodwork." By T. F. Wilson, F.R.S.A.I. 3 p.m. **12 noon.**

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

SATURDAY, SEPTEMBER 13

Sunrise, 6.30 a.m. Sunset, 7.21 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

WEDNESDAY, SEPTEMBER 17

INTERNATIONAL BUILDING TRADES EXHIBITION, Olympia. Until October 1.

BRITISH GLASS CONVENTION. At Buxton. Until September 20. Morning: Meeting of the Council of the Society of Glass Technology. Afternoon: General Meeting of the Society of Glass Technology. Evening: Informal Presidential Reception of members and their friends at the Palace Hotel.

THURSDAY, SEPTEMBER 18

BRITISH GLASS CONVENTION. At Buxton. Morning: Official welcome by the Mayor and Corporation of Buxton, at the Peak Buildings. Presidential Address. Discussion on "Elimination of Waste in the Glass Industry," to be opened by Dr. Miles. Official luncheon. Evening: Mayoral Reception at the Palace Hotel.

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition in the Galleries of Drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.). Until September 30. **10 a.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussions on "Marketing Methods in the Glass Industry" and "Public Propaganda in the Glass Industry," to be opened by Sir Francis Goodenough, C.B.E., and H. Gordon Selfridge, respectively. Afternoon: Golf Competition for championship of the Glass Industry. Evening: Banquet at the Palace Hotel.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Meeting to be held at Southampton.

SATURDAY, SEPTEMBER 20

Sunrise, 6.41 a.m. Sunset, 7.5 p.m.

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussion on "The Convention—Present and Future," to be opened by Mr. Walter Chance, M.A., J.P.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass (1)." 12 noon. "Stained Glass (2)." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North Wales District Meeting, to be held at Bangor.

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS. London and Home Counties Branch. Dinner and Dance to be held at the Quadrant Restaurant, Regent Street, W. Tickets, 7s. 6d.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Yorkshire District Meeting, to be held at Hipperholme.

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Continental Glass." 12 noon. "English Domestic Glass." 3 p.m. Both lectures by Miss B. Goldsmid. **12 noon.**

TUESDAY, SEPTEMBER 30

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. "The Making of a Cathedral—Liverpool." By E. W. Harvey-Piper. (Lantern Illustrations.) **7 p.m.**

ISLE OF MAN GRAMMAR SCHOOL COMPETITION. Latest date for submission of designs.

WEDNESDAY, OCTOBER 1

BURTON-ON-TRENT SCHOOL COMPETITION. Latest date for submission of designs.

FRIDAY, OCTOBER 3

TOWN PLANNING INSTITUTE. Twelfth Annual Country Meeting, to be held at Leicester. Until October 5. Full particulars are not yet available.

SATURDAY, OCTOBER 4

Sunrise, 7.4 a.m. Sunset, 6.53 p.m.

TUESDAY, OCTOBER 7

R.I.B.A., 9 Conduit Street, W.1. Closing date for applications for admission to the Intermediate Examination.

THURSDAY, OCTOBER 9

C.P.R.E. Third Annual Conference, to be held at Welwyn Garden City. Until October 11. Among the papers to be read are the following: "The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields." By Sir Lawrence Chubb. "Town and Regional Planning in their Relation to the Objects of the C.P.R.E." By Sir Theodore Chambers, K.B.E., F.S.I. "Education and Citizenship in their Relation to the Safeguarding of the Countryside, etc.," and "Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds." Each paper will be open to discussion.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_1	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1.2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EAST-BOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* NAVVY, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* BRICKLAYER, 1*s.* 8½*d. per hour;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½
STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0	4	3
DO. 6 in., per ft.	0	5	0
DO. 9 in., per ft.	0	7	9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in, per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ⅜ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1*s.* 8½*d. per hour;* DO. *fixer,* 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone:

Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0

Usual trade extras for large blocks.

York paving, ar. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour;* TILER, 1*s.* 8½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies	£14	0	0
Countess	23	0	0
Duchess	32	10	0

Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms, per ton	£8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2

Cement and sand, see "Excavator," etc., above.

Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	9	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms	6	7 0
Grey-green do.	5	9 0
Green peggies, 12 in. to 8 in. long	4	13 6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	£3	17	6
DO., machine-made do., per square	3	7	6

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour;* JOINER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0

Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour* ; MATE, *do.*, 1*s.* 3½*d. per hour* ; ERECTOR, 1*s.* 8½*d. per hour* ; FITTER, 1*s.* 8½*d. per hour* ; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour* ; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb.*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour* ; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.		7	0
Fine stuff, per yd.	1	1¼	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *½ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour* ; LABOURER, 1*s.* 3½*d. per hour* ; FRENCH POLISHER, 1*s.* 8½*d. per hour* ; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ¼ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



ASSEMBLY HALL WITH BOXED-OUT CINEMA SCREEN AT THE ORATORY CENTRAL SCHOOL, CHELSEA, S.W.

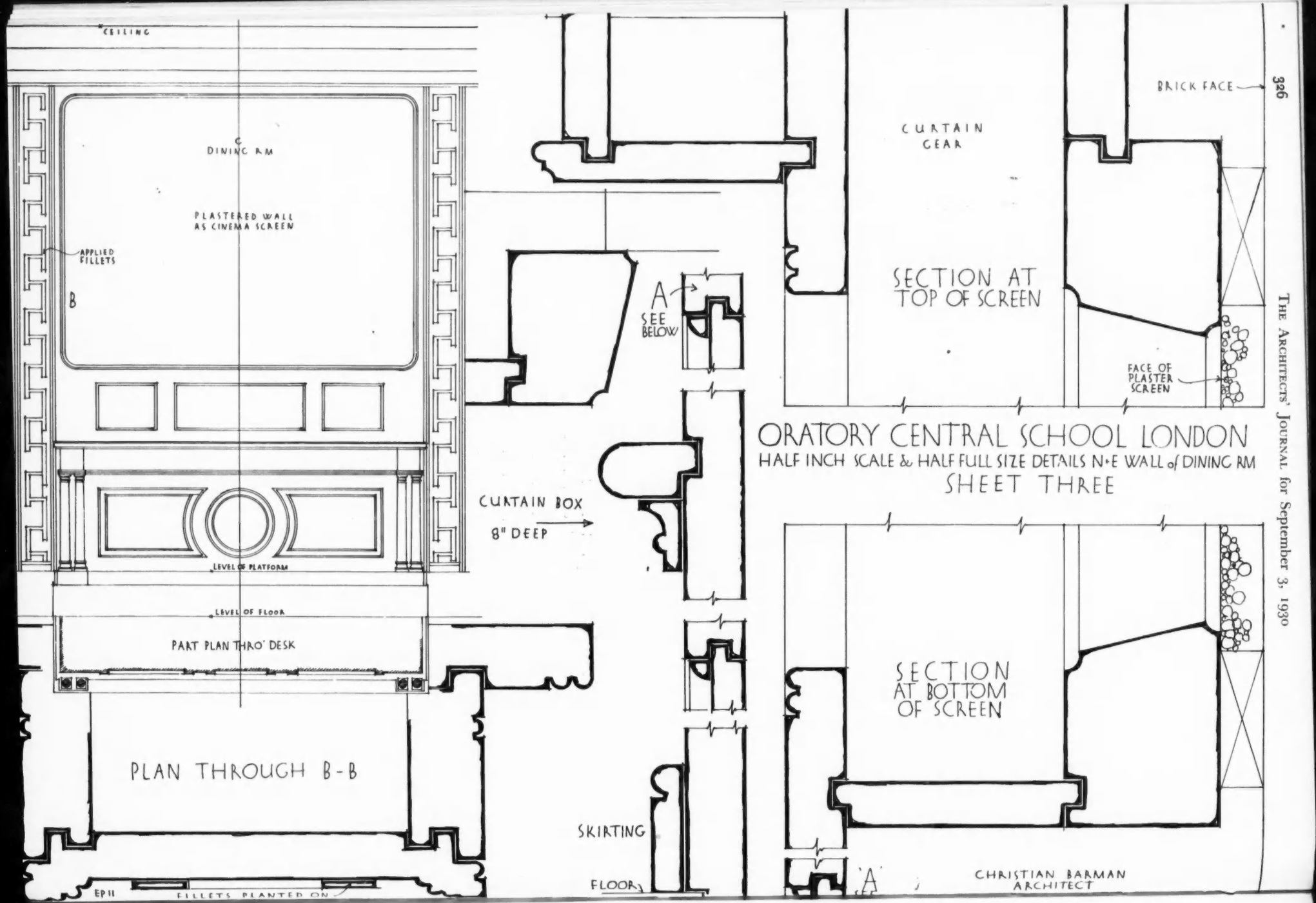
DESIGNED BY CHRISTIAN BARMAN

THE photograph which is reproduced above shows a part of the north-east wall of the Assembly Hall, which is a dual-purpose room, inasmuch as, in addition to serving the needs of an assembly hall, in the usual sense, and one, moreover, where cinema entertainments may be given, it is also here that the children of the school enjoy their midday meal.

The working drawings overleaf show ½-in. scale and half full-size details of the cinema screen—with its boxed-out surround to contain the curtains—and the desk. The surround to the screen is of wood, finished in a pleasing tone of buff to match the walls of the room, while the desk, which is of Columbian pine and is raised on a low platform or dais, is treated with a water stain giving a colour akin to walnut.

(Other details from the same building were treated in this series in the issues for July 2 and 30, 1930.)

The drawing may be read with ordinary architects' scales (½ in.; and 6 ins. = 1 ft.)

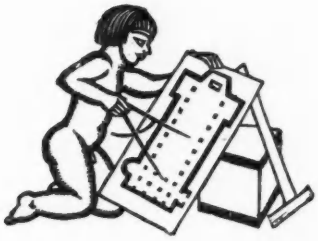


ORATORY CENTRAL SCHOOL LONDON

HALF INCH SCALE & HALF FULL SIZE DETAILS N.E WALL of DINING RM

SHEET THREE

THE ARCHITECTS' JOURNAL



WEDNESDAY, SEPTEMBER 3, 1930

THE DUAL RÔLE:

The Architect his own Client.

"Near some fair Town, I'd have a private Seat."
—JOHN POMFRET

IF there is one person who experiences delights unknown to the rest of mankind, and unknowable, it is the architect who builds himself a house. "Physician, heal thyself," is an ancient injunction, and one, indeed, that in modern times is rarely heeded, for the ailing physician at once enlists the services of a fellow. But even were he not to do so, would there be a thrill and ecstasy in the process of self-healing comparable to that experienced by the architect who sees his inspiration grow firm and strong and three-dimensional before his gaze, all for his own use and delectation?

And with the lawyer, too, the architect can well afford to sympathize for the joys and delights that can never be his; to make his own will, to convey property to himself, and even to conduct litigation on his own behalf seems to offer to the lawyer little scope for rejoicing.

Nor, if we turn to the other arts, do we find anyone in so happy a position as the architect. Most painters at the beginning of their careers must perforce paint pictures for themselves, and many of them bequeath to the world a Self Portrait or a Portrait of the Artist as a Young Man, but these works are executed as often as not with a view to economizing in models.

With the architect, lucky man, it is different. He is creating something out of his innermost self which is to become an integral part of his life; to become, as says Sir Henry Wotton, "The Theater of his Hospitality, the Seate of his Selfe-fruition, the Comfortablest part of his owne Life, the Noblest of his Sonnes Inheritance, a kind of private Princedome."

And what unique relations will be those between client and architect in an enterprise of this sort! The experience may, moreover, reveal to him certain unsuspected frailties of character; for it is possible that, even with such deep intimacy between client and architect, the dual personality may, for a time, be rent by a schism which may well be the begetter of humility. Probably, in his capacity of client he may in certain respects not vary from others of his acquaintance. At any rate, it is likely that at first he will be assailed by dreadful doubts and fears that the enterprise will land him in financial ruin—fears that the architect will view with chagrin and dismay. But anon this mood will be followed by one of supreme recklessness on the part of the client in him, so that the sanctioning of extras of twenty or fifty pounds will be undertaken with as little hesitation and anxiety as the ordering of a new suit of clothes.

Yet there never was such a thing as an affluent architect, and so our friend will be beset by limitations. His task will become the more exacting and the more bracing just on this very account.

What the architect in the man will particularly rejoice in will be the absence of ambiguity in the programme. For the client here is a man who knows what can and what cannot be done, nor will he demand a synthetic plan of incompatibilities built up of irreconcilable fragments such as is to be noted in houses scattered far and wide. As the work proceeds there will be some chastening doubts mingling with the pleasure of seeing the realization of long-cherished ideas.

Yes, without doubt the enterprise is educative. It is also about as exciting as any architectural enterprise could be.



LONDON'S LATEST THEATRE

The Cambridge Theatre, to be opened to-morrow, September 4, with a Charlot show. It is designed by Wimperis, Simpson and Guthrie, and stands on one of the seven corners of Seven Dials. Seating accommodation is for 1,300, distributed between the stalls, dress circle and upper circle. There is no gallery. The seating is uniform throughout the theatre, and is designed for the supreme comfort of the patrons. As soon as one sits down, the back of the seat slides back to an angle of sixty degrees.

NEWS & TOPICS

HIGHER BUILDINGS AND THE L.C.C.—

THE L.C.C. are being sorely tried over the question of higher buildings. The rebuilding of the Hotel Cecil has occasioned a dispute over the height that will be allowed on the Embankment side of the new building when the ordinary limit is imposed on the Strand, the drop between the two being 40 ft.

*

Then there is the unfortunate attitude of the Canadian Pacific Railroad, who will not build their enormous hotel unless they are allowed to skyscrape and be very, very important. I have wondered whether, if the C.P.R. will wait a little, they may not find their great opportunity in the rebuilding of Charing Cross Bridge. I know of one scheme at least which, if carried out, would present two sites, one on the south bank and one on the north, that would not require Montreal skyscrapers to make them the most important building sites in Europe. It would be a fine thing indeed if the development of the south bank could be given such a push forward as only a great hotel could give it.

—AND OTHERS

As I expected, the conference between representatives of the London Society, the R.I.B.A., and the Town Planning Institute—an interim report of which was published on Monday—entirely agrees with the resolution passed by the Council of the Royal Institute that no general relaxation should be permitted in the conditions governing the height of buildings in London. In fact, the conference is of opinion that it is of the utmost importance to regulate the increase of heights and volumes of new buildings that are permissible under existing conditions.

*

The conference urges that not only should the London Building Act be amended, but it is essential that a comprehensive zoning scheme and plan should also be prepared and adopted to regulate mass, density and user in connection with the rebuilding of London. This zoning ordinance should make it clear that building up to the accepted limit of 80 ft. and two stories in the roof will be limited to certain central districts, subject to non-interference with reasonable light and air. Outside these districts zones of diminishing heights and density should be prescribed.

*

With these exceptions, in a city such as London only wide streets and big lots can carry buildings from 80 ft. to 100 ft. high, but if a comprehensive zoning scheme were prepared the conference would see no serious objection to permission being granted, under certain well-defined conditions, for part of the occupied portion of a new building to exceed the statutory limit of height zoned for any particular district, provided always that: (a) No increase in total volume and floor space over and above that zoned for the area is thereby obtained. (b) Effective protection from fire is assured. (c) Adequate protection is given to the rights of surrounding owners to their fair share of light and air. (d) A reasonable uniform cornice level is maintained in certain classes of streets. The report has been accepted by the Council of the London Society, and is now under consideration by the R.I.B.A. and the Town Planning Institute.

RAILWAY STATION ARCHITECTURE

Apropos my remarks concerning railway architecture in last week's issue, I have been interested to read a more voluminous and comprehensive curse in no less a journal than *The Railway Review*.

*

The author, Mr. Holgate, says that very few English stations were built for anything but utility, the earlier stations being mere wooden coverings for passengers, parcels and officials. I doubt if he can find fact for this assumption, and I think I am right in saying that it would have been better for us had the earlier stations been less substantial and less architectural than they were, for then they might the more easily have been replaced in the rapid expansion which overtook the first efforts of railway pioneers.

*

The monumental expression of the railway station was already perfected when Hardwick's great entrance to Euston was built in 1846, while functionalism could go little farther than the façade of King's Cross, which in its day was acclaimed as a wonder. St. Pancras, coming later, was less a railway station than any, even though its skilful planning and ample dimensions have preserved the design more or less intact. It is, as I said before, the pettiness and ignorance of railway directors (and I say *directors* advisedly) that has shown itself incapable of adding to fine works in a generous spirit.

*

Let me gratefully acknowledge, however, the little things that are being done. One of these is to be seen in the great hall of that same Euston. Here Mr. R. Wynne Owen has designed a new information bureau that has just been put into service. It fits into its surroundings without the air of having elbowed its way in, and, incidentally, is the means of displaying the ten pictures by Norman Wilkinson, R.I., that have been for some time the pride of the L.M.S.

LITTER

They are going to hold a "litter week" in the New Forest. Litter is to be collected and brought to Lyndhurst, where it will be publicly burned. Could anything better illustrate the change of public taste in burning than the gradual retrogression from heretics to old newspapers? Time was when a good witch-roasting brought a large crowd together to enjoy a super-thrill. One cannot predict an enormous gathering for this gentler conflagration, but it is to be a public burning, and maybe the mayor will be present.

*

It has been argued that invocations to motorists to burn their litter are likely to engender a very dangerous practice, and that they should be encouraged to take it home in their cars with them. If this is found to be asking too much of them, it might be found possible to have a bin stationed at the entrance to all villages or towns of any size, so that motorists carrying litter from their feasts might get into the way of dropping it in the first bin they came to on the way home. The bin should be

large enough for its purpose, painted attractively, and fitted with an easily-opened, self-closing lid.

★

Perhaps those who know just how much may be expected of motorists will tell me whether this idea is worth thinking about, but it seems to me that if we are to form such public-minded habits in the bulk of the motoring public one must meet them half-way. I think there can be little doubt that, with common perseverance, the litter problem will be happily solved.

BEAULIEU ABBEY

Repairs are in progress at Beaulieu Abbey, which was founded by King John in 1204. Thirty years ago, under the expert advice of Mr. St. John Hope and Mr. Harold Brakspear, the first Lord Montagu conducted investigations into the ruins. Owing to the excavations which were begun at that time, we have today an almost complete plan of the chief buildings of the abbey. The foundations have been clearly marked out in the turf, and the spaces originally occupied by the walls they supported covered with white gravel. Thus the whole extent of the building may be seen.

★

This summer a large number of visitors go round the abbey daily and have been showing keen interest in the reconstruction. Notices are placed on the parts of the building where there originally stood the pulpitum, the nave, the cloister, the library, the dormitories and the warming-house. Under the present Lord Montagu, who was born in 1926, the same care is being taken of the abbey as under his father.

What the Stockholms Dagblad *says Mr.*



Mr Drage

är en populär och välkänd Londonbo, som f. n. beser Stockholm och utställningen. Hans slutomdöme om vår kära Funkis blir ett enda men mycket uttrycksfullt ord:

Rotten.

Intervju se sid. 3.

Drage thinks about the Exhibition.

MR. DRAGE AT STOCKHOLM

Those readers who found matter for thought in the JOURNAL's account of the Stockholm Exhibition will be interested in the above clipping from a Swedish newspaper, giving a summary of an English visitor's views. The visitor is no less a person than Mr. Drage, Mr. and Mrs. Everyman's idolized benefactor; the journal, the *Stockholms Dagblad*. The Swedish daily found Mr. Drage had quite a good deal to say about English protective tariffs. When, however, it asked him to say something about the Exhibition, it got from him only the one expressive word which appears in heavy type, untranslated, on the front page of the paper.

"SYNTHETIC" GLASS

I lunched, last week, with one who presently produced from his waistcoat pocket what I took to be a rod of glass, some 4 ins. long by ½ in. diameter. "Just bend that," he said. I took it in my hands and applied a bending movement, expecting it to fly. But it *did* bend, and in a few seconds returned to its normal configuration. "Lo!" said I, "what is it?" He fired off a perfect rocket of a name, with phenol and formol in it.

★

It is, in short, a synthetic resin, having many of the properties of glass, such as translucency, non-inflammability, non-conductivity of heat and of electricity; and several peculiar to itself, such as elasticity, practical unbreakability, susceptibility of being sawn, bored, turned and polished. Moreover, according to composition, it can be made to pass or resist the passage of ultra-violet rays and can be coloured any hue, transparent or opaque. And, unlike previous essays in the same direction, it does not discolour or decompose with the passage of time. If it can be produced at the economical price my informant prophesied, we shall hear more of it. We should like to.

A FOOTWAY ROUND BRITAIN

This summer's enthusiasm for "hiking" has raised again the question whether, being an islander, I shall be entitled as of right to a footpath along all my native shores and cliffs. During low tide the sands may be available, but at high tide it is often only possible to view the sea by walking on the heads of Upper and Lower Tooting along Marina Parade, at the extremities of which the private gardens come to the cliff's edge. On other portions of the coast there are, it is true, rights of way, beaten by coast-guards and smugglers in less crowded days, and from these the salt water, "your English heritage" (local M.P.), can be really admired. I wish all hikers would join hands (or should I say feet?) and ask the C.P.R.E. and the C.F.P.S. to keep an eye on these paths, which should be carefully preserved and extended. New paths should be planned by architects, of course.

WHERE IS SMARTERLY?

To read the following advertisement gave me pause :—

> TWO ARCHITECT-BUILDERS and BUILDERS.—Who can BUILD a ROOMY HOUSE for £1,000 with forecourt, on Surrey height, near Haslemere; lounge room 30ft.?—Sketches and rough particulars to Box 89, care of Smith's Library, Kensington.

What, I asked myself, do architect-builders do? I do not call to mind an R.I.B.A.B.; who——? And then, of course, I had it. They must belong to that brotherhood "of spurious architects engaged in spurious practice and carrying out spurious designs," typified in the pages of this JOURNAL some three years ago by Smarterly. By the way, where *is* Smarterly? Obviously, this announcement is expressly designed to catch the eye of such as him. Will any reader acquainted with his present whereabouts—for I will be bound he is busy somewhere—communicate them? I should not like him to miss such an opportunity; and it is just possible he does not regularly read the august paper in which this advertisement appeared.

ASTRAGAL



The club house stands high up on the side of a valley and overlooks the golf course in both directions.

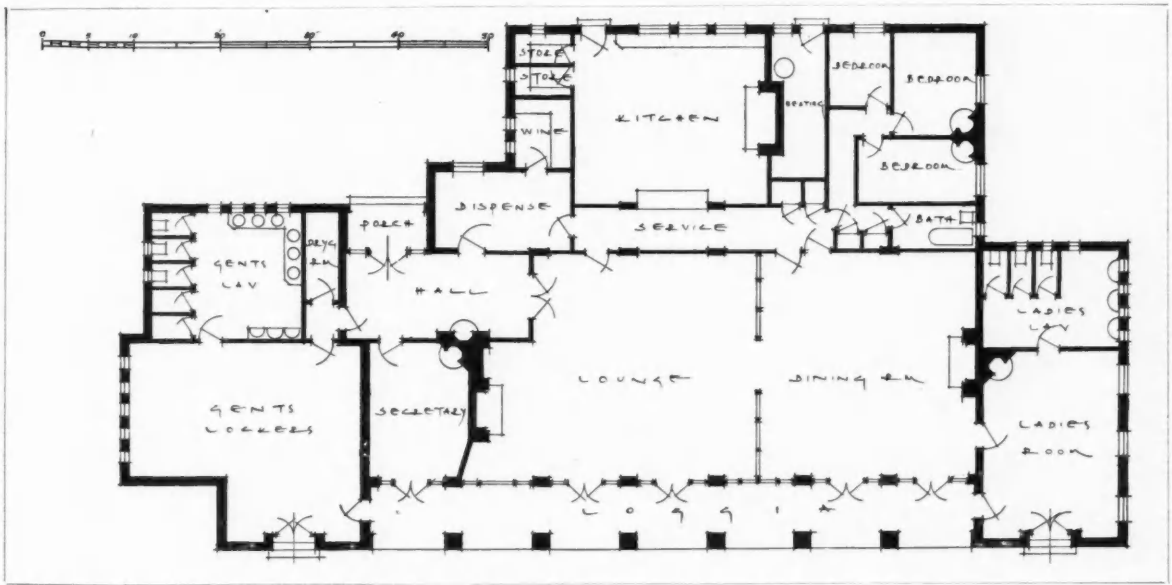
GOLF CLUB HOUSE AT DOWNE, KENT

DESIGNED BY STANLEY HAMP (COLLCUTT AND HAMP)

THIS club house was built on the new course laid down for the Downe Golf Club by Mr. H. S. Colt. Its design was strictly governed by the need for economy both in construction and material. With this end in view it was decided to reduce the finishing materials to a minimum and rely mainly on colour, both externally and internally, for decorative effect. Special structural precautions had to be taken owing to the position of the building on the sloping site.

The roofs are of timber construction, the pitched portions being covered with boarding and dark coloured tiles, and the flats finished in Ruberoid. The ceilings are lined with boarding and the main roof trusses of the lounge are treated with applied colour decoration.

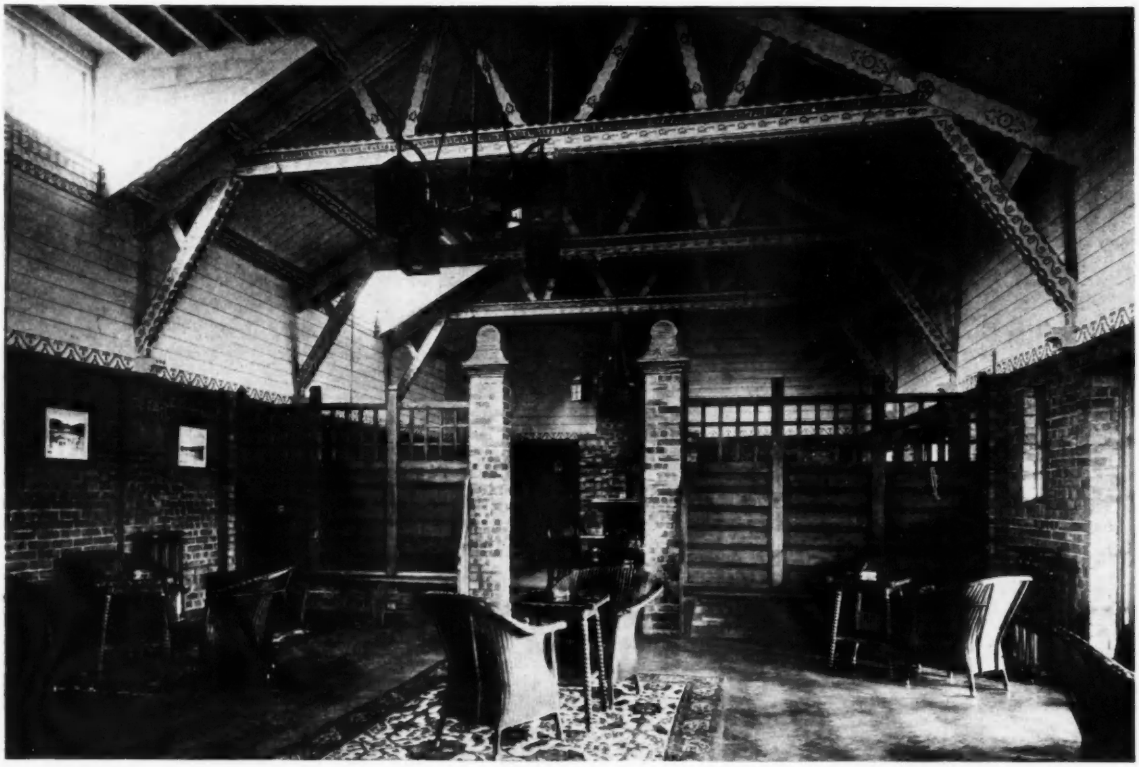
The fireplaces are in brick, of special design, and form interesting features of the various rooms. The whole of the window frames are in timber. A hot-water boiler is installed in the heating chamber for heating and hot water purposes.



The plan. Shower baths are provided in the gentlemen's lavatory, with proper facilities for drying clothes, etc. The floors of the club portions are finished in pitch-pine wood blocks, and the service quarters in patent jointless flooring.



The dining-room. The doorway on the right of the brick fireplace leads to the ladies' quarters; the windows overlook the loggia. Externally and internally the walls of the club house are faced with Fletton bricks of a special texture.



Downe Golf Club House, Kent.] [*By Stanley Hamp (Collcutt and Hamp).*

A feature of the lounge is the screen which separates it from the dining-room beyond. This screen is of timber, painted and treated in colour decoration in keeping with the ceiling. All the fireplaces are in brick.

ADVERTISING AGENCY IN BERLIN

DESIGNED BY ECKART MUTHESIUS

Two old flats in the German capital have been transformed into the modern suite of advertising offices here illustrated and described. The entrance doors and side panels are of highly-polished white metal; the lettering is in blue glass.



AN English visitor to Germany must inevitably be struck by the attention paid to, and the experiments in, commercial architecture. If the taste seems sometimes uncertain, the vitality is always refreshing. Among these experiments, not the least interesting is the new office designed for Crawford's Advertising Agency by the young German architect, Eckart Muthesius.

Actually the building itself is not new, but consists of two old flats which Mr. Muthesius has completely transformed. The sense of display suitable to an office devoted to advertising is aroused at once by the entrance door, which is of white polished metal, with similar polished panels on either side, upon which the name of the firm is written in blue glass letters.

The floor of the entrance hall is covered with a special light red linoleum of German manufacture, underlaid with Ozite as a sound deadener. The colour of the walls is graded from the red of the linoleum below through orange to cream above. In the arches are lights which can be switched on separately, so that either the side or the top of individual arches can be illuminated. There are also skylights above each door. Along the back of the building runs a long passage, the roof of which has been lowered to make it look like a ship's corridor, the walls being painted in horizontal stripes to give an effect of width.

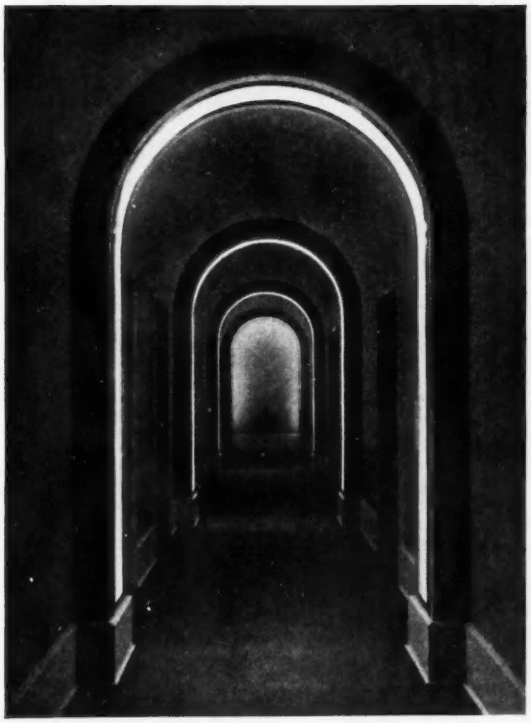
There are two conference rooms, the Silver Room and the Copper Room. In the former the walls are lacquered with silver in horizontal stripes decreasing in width towards the ceiling, the darker stripes having a blue tint. The ceiling itself is covered with glass dust.

In the Copper Room walls and ceiling are of copper, only the ceiling being polished, for the walls are left with a natural surface. Round the room runs a copper rail concealing the general lighting. Sliding wooden strips enable placards of varying sizes to be displayed upon any wall, and these can be specially illuminated by searchlights contained in a box suspended from the centre of the ceiling, the room being darkened for the purpose. All the lighting in this room can be controlled from the table itself. There is on one wall a cinema screen which rolls out of sight.

The furniture in both rooms is of Macassar ebony and is interchangeable. The chairs are upholstered in green saffian leather and the carpets are of thick blue velour.

The walls of the directors' room are covered with jute, and those of the other rooms in the office are colour-washed a light grey.

Photographs being monochromatic, it is difficult accurately to judge from them many details which depend largely upon colour for their effect, but they may be enough to show that Mr. Muthesius and Messrs. Crawfords are to be congratulated upon a building which cannot fail to convey to prospective clients an impression of wealth, power, and originality, qualities so essential to any successful business undertaking. W. H. A.

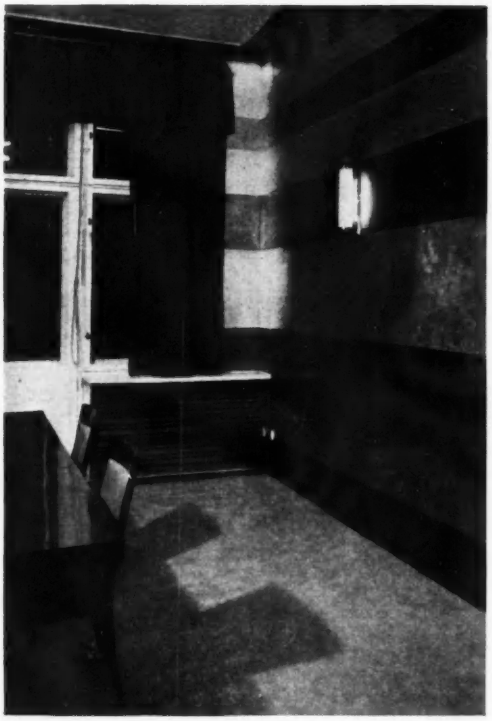


The lighting scheme plays an important part in decorating the entrance hall, otherwise perfectly plain but for the walls, which are graded from red to cream, upwards.

The attention of readers is drawn to the fact that, as the issue of THE ARCHITECTS' JOURNAL for September 17 next will coincide with the opening day of the Building Trades Exhibition at Olympia, it will include a special supplement devoted to the scope of the exhibition and plan of the stands, etc., detailed descriptions of the exhibits, and authoritative articles on aspects of building today. It will be followed by two similar supplements, to be incorporated in the issues for September 24 and October 1. All will be profusely illustrated, and the three together will present to the architect, in concise form, information as to the materials and methods that progress has placed so lavishly at his disposal.

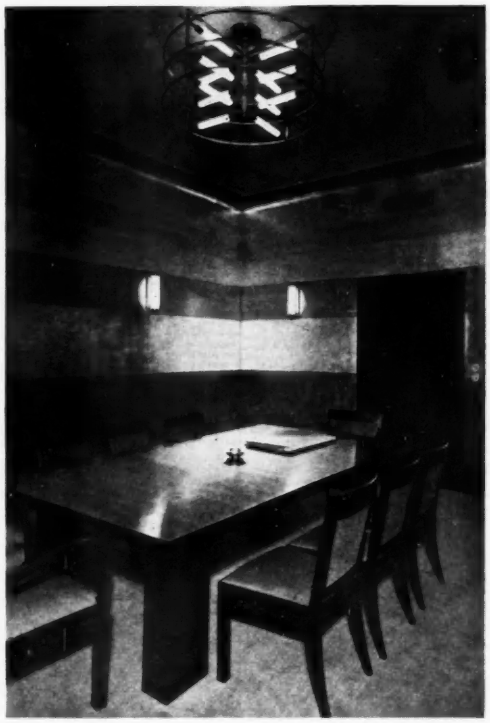


The Copper conference room is lined with that metal, the ceiling polished, the walls left dull. Special means are provided for displaying, under various lighting effects, placards on the walls.



Crawford's Advertising Agency, Berlin.]

In the Silver conference room the walls are silver-lacquered : the darker stripes have a bluish hue.



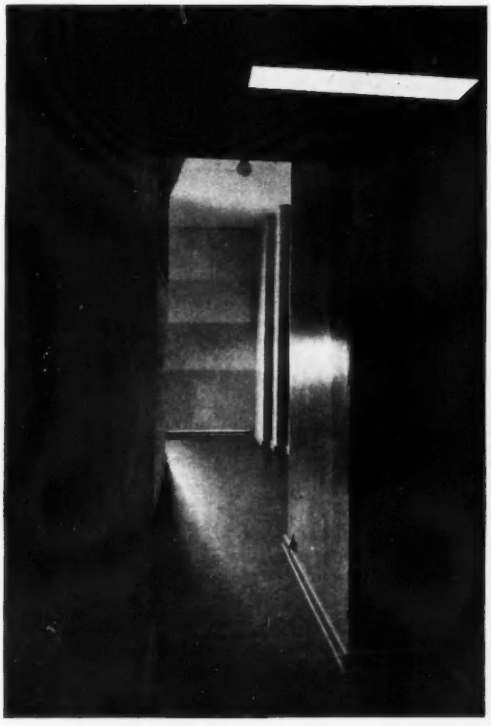
Another view, showing the conference table and the light fittings. The ceiling is covered with glass dust.



Even the strictly utilitarian quarters have a certain style in keeping with the whole—witness the corridors and this combined outer office and store-room for printed matter.



A corner of the ladies' retiring-room, showing the built-in mirror and pair of toilet tables of special design.



[*By Eckart Muthesius.*

The roof of this long back passage has been lowered and lit by a skylight to make it look like a ship's corridor.



[By courtesy of Warner Bros.

Warner Brothers' Vitaphone Studio, Hollywood, California.

AMERICA,
1928:
THE FILM KINGS
BRING
GREECE TO HOLLYWOOD

Comparisons may be odious; they are often uncommonly instructive. Under the same title borne by this pair of examples, it is proposed

ONE WAY AND

i: Fashions in Sound-

BY HUNTLY CARTER,

SINCE 1927 millions have been spent on new buildings strictly determined by the "talkies." In this example, though the main building is so determined, the exterior trimmings are dictated by the wealth and cultural aspirations of the American Film Kings. The Warner Vitaphone Studio at Hollywood reveals, in fact, the characteristics of present-day American architecture, dictated not by functional purpose, but by the taste of men who have risen from very humble beginnings, as little traders, to the position of owners of fabulous wealth.

It is architecture in which money talks. It says that as soon as a strictly commercial nation gets rich, it sticks its money all over the exteriors of buildings in the shape of frills and furbelows. A glance at the frontage shows that it is obviously an attempt to bring Ancient Greece to Hollywood.

And not a very successful one. The union of Greece and the talkie is not happy; nor the introduction of modern details such as electric lamps and curtained windows; nor the three or four modes of architecture; nor the gay American flag, with its note of publicity and millionaires. Imposing Greek entrances, frontages and elaborate Corinthian porticoes are very common in Hollywood. They are generally stuck on vast sound stages of quite different design, and of dimensions and with technical and scientific equipment that leave one breathless with wonder.

All the stages alike are isolated. The materials of the walls and the fitments are selected to exclude even echoes from speech and music. And there is an elaborate system of ventilation which keeps the Beauty Queens from roasting—but only just.



[By courtesy of U.F.A.

The Modern U.F.A. Sound Stage at Neubabelsberg, Germany.

ANOTHER

Stage Architecture

Cinema Research Worker

to note all kinds of things, taken two—or more—at a time, as and when opportunity occurs. The Editor will welcome suggestions from readers.

GERMANY, 1929: FUNCTIONALISM WITH ECONOMY

THE German sound stage offers a very sharp contrast with the fashionable American one. The difference in styles of these structures, enormous in size, hermetically sealed, and with no openings of any kind save entrances, is very instructive for architectural, æsthetic, economic and other reasons. At Neubabelsberg in Germany the celebrated U.F.A. Company has recently built one large sound studio, by far the best and most modern in equipment in Europe and, in the matter of ventilation, in the world. It has four production stages. Four additional studios are available for sound-film production, and two small ones for minor work.

The style and material of this building strike a new note in film industry architecture. It is built in the form of a cross, the centre of which contains all the recording apparatus. A feature of this centre is that it is completely isolated and completely vibration-proof. The walls are executed in small, specially hard-burnt bricks, absolutely resistant to sound-waves. All conductors of vibrations, such as iron and steel reinforcements, are rigorously excluded.

Æsthetically, the building will not attract everyone. It looks too like a prison. It reveals a combination of American commercial and German modernist influences. The introduction of a vertical projection would have relieved the monotony of the slab-like front wall. Relief is, however, afforded by the specially constructed sound-proof entrances at the base. Taken as a whole, it is both striking and unusual, and exhibits the novelty of treatment demanded by a mechanical innovation. Besides this, the economy demanded by German financial conditions is apparent in the entire absence of ornamentation.

THE NEW CATHEDRAL FOR LIVERPOOL



A perspective view of Sir Edwin Lutyens's design for the new Roman Catholic Cathedral for Liverpool. Second in size only to St. Peter's, Rome, the cathedral is proposed to be erected in bricks of Roman shape and Portland stone, with the dome cased in stainless steel.

Addressing an open-air service of thanksgiving for the securing of the site, held in Thingwall Park, Liverpool, on Sunday last, the Archbishop of Liverpool said the site would compare even with the ideal spots chosen for the renowned Gothic cathedrals of that golden period of Catholicism, the twelfth and thirteenth centuries. The cathedral which they proposed to build was not something designed to meet merely the spiritual requirements of that great city, nor even merely those wider needs of the teeming Archdiocese of Liverpool; it was to be the Metropolitan Cathedral of the North of England, the rallying point for the Archdiocese of Liverpool, with its Suffragan Sees of Leeds, Middlesbrough, Hexham and Newcastle, Lancaster and Salford. It was to be to them what York Minster was to their forefathers. It was to make Liverpool a great ecclesiastical centre like Rheims or Cologne, where men of all nations might unite under one roof, in one common worship.



ENGLISH PRECEDENT No. 131

No. 28
QUEEN ANNE'S GATE,
WESTMINSTER,
S.W.

No. 28 is one of the houses in the westerly portion of Queen Anne's Gate, which was railed off from the eastern half and known as Queen Square until 1874. They were built about 1704, the date inscribed on a rainwater cistern in the house illustrated. A replica of the contemporary hood, with pendants (a hood peculiar to this thoroughfare), has lately been reset on light steel girders. That in the Victoria and Albert Museum is believed to have come from this house.

An interesting point in the design of the façade, which is almost opposite the offices of THE ARCHITECTS' JOURNAL, *is the narrow bay of blind windows, the purpose of which appears to be to keep the window openings well away from the fireplaces in the front rooms. The strengthening of the walls of this house during the recent renovation is described on another page.* —[C. BARMAN]

LETTERS FROM READERS

Official Architecture

SIR,—I have noticed several notes in THE ARCHITECTS' JOURNAL on the evils of architectural work being undertaken by public officials. Consequently, it may be of interest to learn of the following case which has just been related to me.

A Public Utility Society was formed in Cork, and obtained plans for a housing scheme from a draughtsman, who is a whole time official attached to some public board. When tenders were invited, the South of Ireland Builders' Association declined to allow any of their members to submit estimates. Their reason for this action was that they did not consider that a contractor dealing with such a body would have sufficient protection unless a qualified architect were appointed.

This is an interesting point of view and, I think, a wise one. It is also distinctly complimentary to our profession.

HENRY H. HILL

(*The following is the Association's view.*—ED., A.J.)

SIR,—I beg to state the members of the South of Ireland Builders' Association, acting for their own protection, are bound not to tender for any work exceeding in value £500, unless there is a recognized architect in charge of the work. The reason for fixing the sum at £500 is to enable a builder to execute smaller jobs and repairs, where the client might not consider an architect necessary. But generally, builders, in our opinion, are much better protected, even in such smaller jobs, when a recognized architect is employed. His duty then, and at all times, is to act fairly between builder and client.

THOMAS KELLEHER, CHAIRMAN

SIR,—Your admirable leading article under the heading "Sheffield Recants" (August 20) does not, unfortunately, represent an exceptional case, but indicates the trend of affairs more or less all over the country.

I am not by any means an old man, and within my architectural memory the city in which I had the misfortune to be born and where I now practise—(not Sheffield)—gives a fair sample of the growing tendency to municipalize architecture.

When I was a pupil the city architect's office consisted of a staff of half a dozen; to-day it numbers seventy. The De-rating Bill has now brought the designing of schools within its ambit. Added to this, we have a burgh engineer who carries out architectural work and calls himself an architect and designer.

No doubt they are able, Godfearing men and pillars of the Church, but that does not necessarily confer on them marvellous powers as designers or deny them the right to a little recreation and rest from their labours, neither does it confer on them the infallibility claimed by the Pope.

The question of honorariums is an old one, and it has always appeared to me as unjustifiable that men in a protected industry who cannot be discharged unless for crime or flagrant incompetence should be so specially favoured when, if the truth were known, they owe so much to loyal, competent and hard-working staffs.

To ask an official architect to undertake large commissions only means, in most cases, that he takes on specially qualified temporary assistants at the ratepayers' expense.

Again, in Victorian days, it is true that private architects mostly gained their honours and titles through their ability to select the best men for their staffs. Now, with a higher standard of architectural education, a private architect who gains distinction mostly deserves it, as a right, for personal attainments.

The R.I.B.A. seems powerless to protect the men who have done most for the profession. One has only to glance back over the last forty years to realize that while the status of the architect has improved immensely, it is no longer possible for the scholar to receive an adequate return for his training and ability.

Sooner or later Government and municipal architecture will mean standardized architecture, and that means the end of the real progress of architecture as an art. Anyone who has ever been under official control knows the deadening and soul-killing influence under which he labours. There are many side issues which cannot be dealt with in a mere letter, but the Sheffield case may help to clear the decks for further united action on the part of private architects, and force the R.I.B.A. drastically to deal with this matter.

W. D. CYMA-RECTA

[A writer in *The Sheffield Telegraph*, commenting on our leading article, states that "opponents of the grant contend that the City Architect is already paid an adequate salary, and that the plans for the new building should be regarded as part of his ordinary work without the payment of a special fee. On the face of it this contention appears to be sound. A full-time official is one, presumably, who devotes the whole of his energies to the work of the Corporation, and the lay-mind cannot be expected to grasp those professional niceties which place certain classes of work outside the scope of normal duties.

"An open competition would undoubtedly have avoided controversy, but I am afraid the ratepayers would have been called upon to pay considerably more in fees than the £1,000 honorarium to the City Architect."—ED., A.J.]

Oxford, Past and Present

SIR,—As one who must bear some responsibility for the *D.I.A. Cautionary Guide to Oxford*, and in the absence from town of others better qualified to speak with authority, I cannot help questioning whether the shop front in question deserves the unprintable adjectives Mr. Baillie Scott was tempted to apply in your issue for August 20. We knew that the moment we passed beyond criticism of untidiness to praise of good work that we should "be in for it." But if the D.I.A. is to reserve its commendation only for picturesque survivals and houses built to match their environment, then, indeed, I think it is time to put up the shutters.

But I beg you, sir, to reprint the illustration and the caption which appeared underneath. [Unfortunately, this is impracticable, but readers will find it on page 185, August 6, 1930.—ED., A.J.] What was it we stressed? Why, the tidiness of one corner compared to the welter of advertising on the other.

I am not disposed to sing the praises of Messrs. Warland's premises architecturally, even were I competent to do so. I don't like the top portion very much myself, though the bottom is fit enough for its purpose, the large windows being necessary to display motor cars and cycles, and the lettering on the fascia being distinctly good. I will venture to say that at least it is not an eyesore. I will even go so far as to say that, compared with the work of various distinguished architects, including college buildings which figure on picture postcards, it is creditable to whoever designed it.

That is as far as I am disposed to go, and very much farther than I need have gone, since the point at issue was solely the tidiness of the two premises.

NOEL CARRINGTON

The Industrial South

SIR,—Astragal, in the July 16 issue of THE ARCHITECTS' JOURNAL, referred to the growth of new industries in the South of England. I feel, therefore, that the following figures, taken from the *Ministry of Labour Gazette* for November, 1928, giving the changes in the geographical distribution of persons insured under the Employment Insurance Act, are of great interest.

The 1923 figure is taken as 100, and the percentages of employed for July,

1924, and July, 1928, are given as under:

London	100·4	110·2
South-East England ..	103·8	118·4
South-West England ..	101·3	109·8
North-West England ..	101·0	103·9
North-East England ..	100·9	103·5

This indicates that a greater percentage increase of the insured population occurs in London and South-East England. The report also shows that, of the whole population, 46·7 were employed in the southern section in 1923, and in 1928 it had increased to 48·5, while the numbers in the northern section had declined from 53·3 to 51·5.

This is a matter that has a far-reaching bearing upon the future of the home counties. If this increase continues, and there appear to be indications that it will do so, it is only regional planning which will save the home counties from the fate which has overtaken most industrial areas in the past. The Greater London Regional Planning Committee is fully aware of this tendency and has a sub-committee studying the problem of decentralization.

There is sufficient experience to teach us that an industrial town can be as healthy and beautiful as any other town. Letchworth is an example of this, where there are over a hundred different factories, with more than twenty distinct types of industry. A working population of over four thousand, out of a total population of fifteen thousand who have gone to Letchworth for their work, are more than satisfied with the better health and amenities which the town gives them. Here, then, is the way in which any industrial concentration of the home counties might be provided for.

A. T. PIKE

Guildford Cathedral Competition

SIR,—It is surely becoming obvious to the promoters of the Guildford Cathedral Competition that they will have to revise or reissue their conditions. This may involve them in "eating humble pie," but it may prevent them from ruining a great enterprise at the start.

We were told that Mr. Tapper had been advising the Bishop for some months. It seems incredible that such a hopelessly vague, muddled and contradictory set of conditions should be the outcome of months of work.

The real questions at issue, however, can be reduced to two: One: those competitors who have not actually carried out ecclesiastical work of their own may design a cathedral, or, as "P. E. P." says, three cathedrals, if they choose. That much is clear; but is this cathedral to be designed especially to suit Guildford, or not? If it is, why are we not given definite requirements and a site plan? If not—that is, if it is a purely hypothetical design—why does the Archdeacon, in your columns, drag in the existence of a site at all?

Two: Why is the competition not to be an anonymous one? Let me say at once that I do not for one moment doubt the honesty of either the assessor or the promoters; but there is no doubt that many young men feel that, even before their designs are examined, their chances are slightly prejudiced, if only in the subconscious mind of the assessor, by the fact that "they have never been heard of."

"CATHEDRAL"

The Mansard Roof

SIR,—In my comparison of mansard and attic roofs, I have been at pains to present the case fairly in so far as matters of pure space are concerned, and I am well aware that the mansard roof can be put to all sorts of uses when once you have built it.

The point is whether such an incongruous form of roof should be built at all, and whether it would have arisen had the London Building Act been revised in time to agree with modern construction. I do not for one moment believe that business men would object to attic roofs if they could see enough of them to realize how much finer than the masquerading mansard they can be. The pity is that the fashion has been set.

E. MAXWELL FRY

Regarding Doors and Windows

SIR,—Your correspondent, Mr. Blessington, inquires, in your August 20 issue, who killed the Venetian blind and why don't doors slide. Of course, you can have both if you want them. I presume he means why are they not fitted as standard in the average house. The Venetian blind is out of fashion and, as he suggests, is a dust trap; it is also comparatively complex, with its system of cords and tapes, and these tend to get out of order as well as rotten.

The panelled hinged door is of very ancient origin and is traditional of almost all building systems. Also, sliding is not so easy an action as swinging, and more expensive. Nevertheless, it is interesting to me that he should have asked these questions, for I fitted both in the House of the Future (The Ideal Home Exhibition, 1928), but specially designed so as to avoid the disadvantages above mentioned. The slat blind worked upwards, and when not in use packed into the window board. It was made of thin strips of aluminium. The doors were constructed both to swing and slide as desired.

The importance of Mr. Blessington's remarks lies in the fact that they disclose that he is one of the many laymen who are beginning to regard present-day house construction with a sceptical eye. They demand that a house shall be a convenience for the purposes of living, not a museum of meaningless traditions, which they are rapidly destroying by their "whys" and "why-nots." They are the forerunners of a great army of people who, quite accustomed to the functioning of applied science and logic in other spheres, will expect it at home—why not?

R. A. DUNCAN

SIR,—Mr. Blessington's queries are not, I think, as difficult to answer as some, but I may be in a fool's paradise in that he will probably reject my answers.

(1) Who killed the Venetian blind, and why?

The fresh air movement, I think, killed it. This type of blind is admirable on a breathless day, but if the window is wide open and the wind gets up, the noise is unconscionable—bad in a sitting-room, it is maddening in a bedroom.

(2) Why not sliding doors to all rooms?

The first reason would be on the score of expense. Sliding-door gear is more expensive than hinges. If the door is made to slide on the face, it is unsightly and upsets the arrangement of furniture and pictures. If it is to slide in a cavity, it means double partitions or double walls. Sliding doors are generally noisy, and they are certainly more difficult to open and shut, especially when carrying a tray.

H. D.

Noise Prevention

SIR,—I was interested to read Astragal's paragraph in your issue for August 13 dealing with noise, and I need hardly say that I am fully in accord with his view of the serious effect produced by it on workers of all classes.

The whole problem is exceedingly intricate, involving, as it does, not only the exclusion of noise from buildings or its reduction therein, but also the many sources thereof, which it is almost impossible to deal with except by very slow degrees.

On the other hand, it is readily understood that the general level of "noise intensity" in a room can be greatly reduced by the introduction of a suitable amount of absorbent material, just as glare might be reduced by painting the walls black. Moreover, there is at present at least one very successful noise excluder which can be fitted to almost any sash window. This admits of adequate ventilation while reducing the noise to just about the same intensity it would have if the window were shut.

There is also the possibility of designing blocks of offices, for example,

with artificial ventilation throughout, and this plan, I understand, has been adopted fairly freely in America and occasionally in hospital wards in England. Such a system could be made substantially noiseless, and is well worthy of consideration on the grounds of increased efficiency in staff whenever a big office block is in question.

In my judgment it is on these lines, rather than of those of attacking noise at its source, that immediate relief is most likely to be obtained at the present time. W. WHATELY SMITH

Moisture on Walls

SIR,—The reply, in the JOURNAL for August 20, to a reader who asked for an opinion as to the best method of preventing moisture finding its way through brick walls, seems to indicate a lack of decision which almost equals that of the reader who sought advice.

Most people who have had any extensive practical experience of such matters agree that any liquid application made with a brush or spray is not likely to be permanent; and, in justice to the manufacturers of proprietary solutions sold for this purpose, it ought to be said that they are usually at pains to make it clear to purchasers of such materials that the treatment requires renewal every few years. The temporary nature of these superficial coatings is largely due to their lack of thickness, and the scour of the weather wears them away in time. This applies equally to a film of paint, and it is difficult to see how your contributor can reconcile his opinion that "*painting is probably as efficient as anything*" with his condemnation of other superficial coatings on the score of their transient nature.

The very general experience is that a waterproofed rendering of cement mortar applied to the outer face of a brick wall provides an effective and permanent remedy against the penetration of dampness, except where improper materials or workmanship, or structural movement of the building, result in cracks.

It is obvious that the application of a waterproofed rendering to the outer face of a wall will hinder the escape of moisture that may be already contained in its thickness, and such moisture can, thereafter, only be got rid of by evaporation from the internal surfaces of the walls. In the case of a new wall, this objection seldom arises; but where it is required to treat a wall that is already saturated, the difficulty can be overcome by applying a rendering of waterproofed cement mortar to the internal surface of the wall, and finishing with an absorptive lime plaster skimming, which minimizes the risk of condensation. This internal treatment has the advantage of quickly shutting out the dampness from the room, and obviates any interference with the outside appearance of the building, which is often a matter of vital importance.

L. E. WALKER

Restorations after Fire

SIR,—There appear to be many ways of securing commissions. I have often received advice from older men on various methods which are not in strict accordance with the Code as laid down by the R.I.B.A. Being an altruistic sort of person, I feel compelled to give your cultured and learned readers the benefit of the latest method which has come under my notice.

A fire broke out in a buildin about ten miles from the nearest town.

An architect secured a seat on the fire engine and waited at the scene of the fire until the fire assessor arrived, and secured the job.

Could an F.R.I.B.A. do this and still retain his status in the profession?

Advice to young architects. Marry the local firemaster's daughter!

WILLIAM DAVIDSON

Settling-Up Honeywood: xv

RIDDOPPO TO THE FORE

BY KARSHISH

(H. B. CRESWELL)

¶ *The interior paintwork has gone wrong; and Sir Leslie Brash, the owner, after failing to get the builder, Grigblay, to accept responsibility, has successively consulted his solicitor, Russ; taken Counsel's opinion; sought to place liability on the manufacturers, the Riddoppo Company; and then sent the whole correspondence to his architect, Spinlove, with instructions to make a final demand on Grigblay for restitution, which demand Grigblay has repulsed.*

BRASH TO SPINLOVE

Dear Mr. Spinlove, 18/9/26.

My protracted absence on an unexpected prolonged round of visits to yachting and other sporting acquaintances has postponed the earlier transmission of my correspondence with Messrs. Russ and the Riddoppo Company anent the failure of the paint, which I now eventually enclose herewith for your perusal previous to our anticipated meeting on the 25th. It would be advantageous if you would be so obliging as to allocate the forenoon of the 26th to a discussion of the proposition which will then be assisted by the convenient presence of the defective paintwork.

I am considerably astonished at the attitude now adopted by my friend Mr. Ziegfeld Swatmug, under whose personal recommendation I eventually arrived at the final decision to utilize Riddoppo; but you will see that the failure of the paint is demonstrably due to the remission of Mr. Grigblay to apply Riddoppo by sufficiently workmanlike methods to procure desirable result. This—may I be permitted to remind you—is precisely what I have all along prognosticated.

As you are aware, I have caused the disastrous consequence of the disintegration of the paint to be mitigated by the application of frequent scrubbings, and it is desirable that I should intimate for your information that this arduous duty has made it imperatively necessary to *further augment the domestic staff*, and that I am keeping an exact account of the extra disbursement occasioned. The dilapidated aspect of Riddoppo is, as you must have discerned, a perfect disgrace to *any* gentleman's house, and I desire that Mr. Grigblay should be finally informed that remedial action without any further protracted delay is at once imperatively necessary.

Yours sincerely,

It will be remembered that four months before a deadlock was produced by Grigblay flatly refusing to accept responsibility for, or have any hand in the restoration of, the defective Riddoppo paint; and that Brash then said he was going to take the advice of his solicitors.

(ENCLOSURE 1)

RUSS AND CO., SOLICITORS TO BRASH

Sir Leslie Brash v. Grigblay and Riddoppo, Ltd.

Dear Sir, 28/5/26.

In accordance with instructions you gave to Mr. Russ in interview on May 7th to take Counsel's opinion, we referred the case for the opinion of Mr. Geoffrey Chawlegger, K.C., and this opinion we have now received.

We do not enclose the opinion as it is of considerable length and highly technical, but Mr. Chawlegger holds the same view of the facts as Mr. Russ expressed to you in conversation, and which may be stated as follows:

1: Your letter to your architect of 24th September, 1925, instructing him to order the builder (Grigblay) to use Riddoppo paint, and stating that you accepted responsibility for so ordering after Grigblay had previously, in his letter of 22nd September, 1925, objected to the paint and refused to take responsibility for the results of using it, absolves Grigblay from any liability for defects which subsequently manifested themselves, except defects which can be shown to be due to his neglect to use reasonable care in applying the paint.

2 : The Riddoppo Company is responsible to you for breach of warranty if it can be shown that the paint was not suitable for the purpose for which it was supplied.

·3 : The Riddoppo Company is not responsible to Grigblay for breach of warranty in supplying and Grigblay is not responsible to the Riddoppo Company for negligence in applying the paint.

4 : Your right of action is against the Riddoppo Company for breach of warranty, or against Grigblay for negligence, or you may cite both and make them jointly defendants to an action for damages.

5 : The architect is not responsible to you for breach of warranty by the Riddoppo Company, but action may lie against him for negligence in not seeing that the paint was properly applied, and he may be joined as defendant in any action you may bring against the builder.

In view of this opinion we think it desirable to settle the matter by getting the parties each to agree to bear a portion of the cost of renovation; failing which we think your only course will be to make all three joint defendants of an action for damages.

Yours faithfully,

(ENCLOSURE 2) BRASH TO RUSS AND CO.

Dear Mr. Russ, 2/6/26.

I have perused your communication with some consternation as it intimates, I apprehend, that a considerable period of time must elapse before the desired renovation will be eventually completed. Is there any prohibitive reason why I should not employ some person to carry out the necessary restoration of the paintwork as a preliminary to suing the defendants for the amount of my consequent disbursement ?

Yours sincerely,

(ENCLOSURE 3) RUSS AND CO. TO BRASH

Dear Sir, 5/6/26.

In the event of both Grigblay and the Riddoppo Company refusing to restore, you are entitled to have the renovations carried out, and include the cost of the work in your statement of claim in any action you may take. It is, of course, advisable that the work done should be confined to putting the paintwork into the condition in which it would be if the defendants had fulfilled their obligations. It will also be advisable to have technical evidence that nothing more was done than was necessary to this end.

Yours faithfully,

(ENCLOSURE 4) BRASH TO SWATMUG

My dear Mr. Swatmug, 9/6/26.

I anticipate you will remember that some twelve months ago you were so very obliging as to interest yourself anent a certain small domestic building-adventure of mine, and to strongly recommend a new novelty super-paint manufactured by Riddoppo, Ltd., of which you are, I think, chairman; and that you also most kindly introduced me to an official of the Riddoppo Company who gave me most invaluable advice upon the appropriately suitable variegation of tints to be selected, and for which kind assistance I had occasion to offer you my very sincere appreciation and thanks.

I regret, however, to communicate that a very brief period of time after the completion of the interior painting of my house, Riddoppo commenced to peel off and disintegrate in a most alarming manner, and it is now demonstrably evident, I am pained to say, that the whole work will have to be again renewed, as it is in a deplorable condition and a disgrace to *any* gentleman's domicile, as you would, I am confident in thinking, most emphatically agree. The builder, who is a somewhat rough, obstreperous fellow, disclaims all responsibility, as he asseverates that he used Riddoppo by my orders which—I need hardly tell you—I did not hesitate to give him after so strong a recommendation from yourself.

It will, as you will perceive, be a very great advantage to me under these distressing circumstances if you would grant me the privilege of consulting you and availing myself of your abundant stores of experienced knowledge; and if you could spare us the pleasure of your company at Honeywood for a week-end—or longer if possible—or can at any time concede us a single night of your valuable time, Lady Brash and myself would have most extreme pleasure in entertaining you.

It is a considerable interval since I had the good fortune to meet you, but I often hear from friends of the activities of your busy life, which, I trust, continue to prosper.

Believe me, my dear Mr. Swatmug,

Ever yours sincerely,

(ENCLOSURE 5) BRASH TO SWATMUG

My dear Mr. Swatmug, 17/6/26.

I ventured to indite a missive to you some three weeks ago anent the Riddoppo paint you were so very kind as to recommend for the interior decorations of an unpretentious house I was building. As I have received no expected reply, it occurs to me either that possibly you never received my letter or that, by some unfortunate disaster, yours to me has gone astray.

Lady Brash and myself have been looking forward to the pleasure of offering you the hospitality of Honeywood Grange and live in hopes that the enjoyable event will not long be delayed.

Ever, my dear Mr. Swatmug,

Yours very sincerely,

(ENCLOSURE 6) SWATMUG TO BRASH

My dear Brash, 24/6/26.

Yes, I received your "missive" and must apologize for not having answered it before, but what with being much abroad and having several flotations in hand, and then this wretched divorce action which you must have heard of, I am afraid your letter escaped my attention.

I am delighted to have been of service to you, so please think no more about it, but I am not clear what matter it is you refer to. However, I have nothing now to do with the Riddoppo Company, as I resigned from the Board when they wrote down the capital, so I fear I can be of no further use to you; but in any case I know nothing whatever about paint, though I always understood Riddoppo was a sound proposition, and what you say is news to me.

I should only be too delighted if it were possible for me to accept your and your good Lady's charming invitation, but, alas ! that is quite out of the question, I am sorry to say.

Yours sincerely,

A charming letter : the letter of a super-salesman who knows no virtue that has not passed the test of "Does it pay?" and who has sold the goods (and the buyer) and sees no more profit in the miserable, grovelling Brash.

(ENCLOSURE 7) BRASH TO SWATMUG

My dear Mr. Swatmug, 26/6/26.

Permit me to thank you in acknowledgment of your communication anent Riddoppo. I anticipated that, as it was at your urgent personal recommendation that I adopted the use of Riddoppo, you would be desirous of assisting me in securing elimination of consequent defects ; however, I comprehend that you have now no connection with the Company and that I need have no apprehension that you will interpret any action I take to secure restitution from the Company as in any way involving yourself.

Lady Brash and myself are extremely disappointed to know we may not immediately anticipate the enjoyment of a visit from you, but we still live in hopes that eventually your divers engagements may permit you to give us that pleasurable gratification.

Believe me, dear Mr. Swatmug,

Yours sincerely,

(ENCLOSURE 8)

BRASH TO SECRETARY, RIDDOPPO CO., LTD.

Dear Sir, 5/7/26.

About twelve months ago you supplied me with a quantity of your New Novelty Riddoppo super-paint

for the interior decoration of Honeywood Grange. I regret to inform you that a very brief period after the painting was completed it commenced to disintegrate and peel away from the surface. I shall be glad if your representative will call at an early date to view the disaster, and to know what proposals you will make for immediate renovation.

Yours faithfully,

(ENCLOSURE 9)
BRASH TO RIDDOPPO CO., LTD.

Dear Sirs, 12/7/26.

Permit me to call your attention to my communication of July 5th anent failure of your Riddoppo paint, and to politely request the favour of an immediate reply without any further procrastination.

Yours faithfully,

(ENCLOSURE 10) RIDDOPPO, LTD. (AND REDUCED) TO L. BRASH, ESQ.

Dear Sir, 19/7/26.

We do not find that at any time have we supplied any goods to your order.

Yours faithfully,

We now may begin to understand why there was an interval of four months between the day Brash referred the question of responsibility to Russ and that on which he wrote telling Spinlove liability lay at Grigblay's door.

It will be noticed that the Riddoppo Company describes itself as Ltd. "and Reduced." This means that the Company has, as Swatmug mentioned, written down —or cancelled—part of its share capital. This writing down is equivalent to cutting losses, and will enable the Company to pay the small available dividends on the reduced nominal share value, which would have been swamped as a percentage on the original share capital. The fact suggests that the Riddoppo Company is struggling to keep its head above water.

(ENCLOSURE 11) BRASH TO RIDDOPPO, LTD.

Dear Sir, 20/7/26.

I beg leave to communicate the obvious intimation that your Riddoppo super-paint was not ordered by myself, nor am I aware that it is a customary habit for private gentlemen to order materials for building operations. The paint was appropriately ordered by my builder, Mr. Marston Grigblay, of Maidstone, as—will you permit me to politely remind you?—you could perfectly well have informed yourself had you so desired.

It is also desirable that you should clearly comprehend that attention to this matter brooks no further protracted delay, and that unless I immediately receive a satisfactory proposal for the restoration of the defective paint I shall employ other persons to carry out the necessary undertakings and hold you liable for the cost as well as for the disbursements I have already incurred in *augmentation of the domestic staff* necessary to the prevention of deleterious effects upon carpets, curtains and furniture.

I have also to ask your permission to intimate that you are not addressing "Mr. L." but Sir Leslie Brash Knight Bachelor, which information you could have immediately acquired from the most cursory reference to *Dod's Peerage, Who's Who*, the Post Office and Telephone Directories and numerous other publications.

Yours faithfully,

(ENCLOSURE 12)
RIDDOPPO TO SIR L. B. K. BACHELOR

Dear Sir, 5/8/26.

We regret error in name, which was new to us, and signature hard to decipher.

We have now communicated with Mr. Grigblay and enclose copies of correspondence, which kindly note, as this closes the matter so far as we are concerned, and oblige,

Yours faithfully,

(ENCLOSURE 12A) RIDDOPPO TO GRIGBLAY

Dear Sir, 26/7/26.

Sir Leslie Bachelor of Honeywood Grange has written complaining our N.N. super-paint ordered by you has gone wrong there, and shall be glad of particulars, as this is the first we have heard of same.

Yours faithfully,

(ENCLOSURE 12B) GRIGBLAY TO RIDDOPPO

Gentlemen, 27/7/26.

We painted out Honeywood with your Riddoppo super because we were so ordered, and if you want to know what it looks like better go and see as we only carried out architect's orders and it is no more business of ours and we will have no more to do with it. You may like to know we did not French polish or put fire to it or squirt any acid at it or boiling water or super-heated steam or molten lead, but if that is what is wanted there is still a bit of it left for you to get to work on.

Yours faithfully,

The last paragraph is a characteristic comment of Grigblay's on the advertisements of "Riddoppo New Novelty Super Paint," which held out, for the encouragement of house-owners and decorators, that it was "fire and acid proof, not to be damaged by jets of boiling water and superheated steam and capable of receiving a high polish."

(ENCLOSURE 12C) RIDDOPPO TO GRIGBLAY

Sir, 30/7/26.

We suppose your saucy letter is because you do not know better and want to insult us because your painters do not know how to read instructions when they are printed in clear print on the tins for everyone to see and go by. The paint we sent you was in perfect condition as supplied to others, and if you have made a mess of things by not following instructions, well, that is your affair and not ours, which kindly note as this is the last we have to say to you or anyone else on this matter and oblige,

Yours, etc.,

(*This ends correspondence covered to Spinlove by Brash's letter of 18/9/26.*)

SPINLOVE TO GRIGBLAY

Dear Sir, 20/9/26.

I enclose copy of correspondence on the subject of failure of Riddoppo, which I have today received from Sir Leslie Brash, who considers it to be demonstrated that the defects are due to the painting not having been properly done, and instructs me formally to call upon you to clean off and repaint forthwith.

Will you return enclosures by Friday morning at latest, and let me know what answer I am to give Sir Leslie, as I am meeting him to discuss the matter on Saturday morning at Honeywood.

Yours faithfully,

Spinlove has no business to send what are, in fact, Brash's private papers to Grigblay. By doing so he takes Grigblay behind the scenes and puts him in possession of his client's "case"—as the lawyers call it.

The detachment Spinlove again displays in his letter is now unavoidable. The time has gone by when any architect could hope to smooth things over and effect a settlement.

GRIGBLAY TO SPINLOVE

Dear Sir, 21/9/26.

Correspondence *re* Riddoppo returned herewith. We have nothing to add to what we have already said and shall be glad if your client will note same.

Yours faithfully,

And so Sir Leslie Brash is left hanging in the air, which is just what we have been expecting and no more than he deserves, for overriding the advice of his architect and the objections of the builder. If Spinlove had specified Riddoppo and Grigblay had used it without protest, Grigblay—and possibly Spinlove—would have been responsible to Brash; and as Brash holds a substantial sum as security for Grigblay's performance of his covenant to make good defects, he could, if Grigblay failed to make good, employ someone else to do the work and deduct the cost from moneys to become due to Grigblay, so that his position would have been secure. A claim for damages would still lie against the paint company for breach of warranty, if it could be shown that the failure was due to defective paint, but this would be Grigblay's affair entirely, and no concern of Brash.

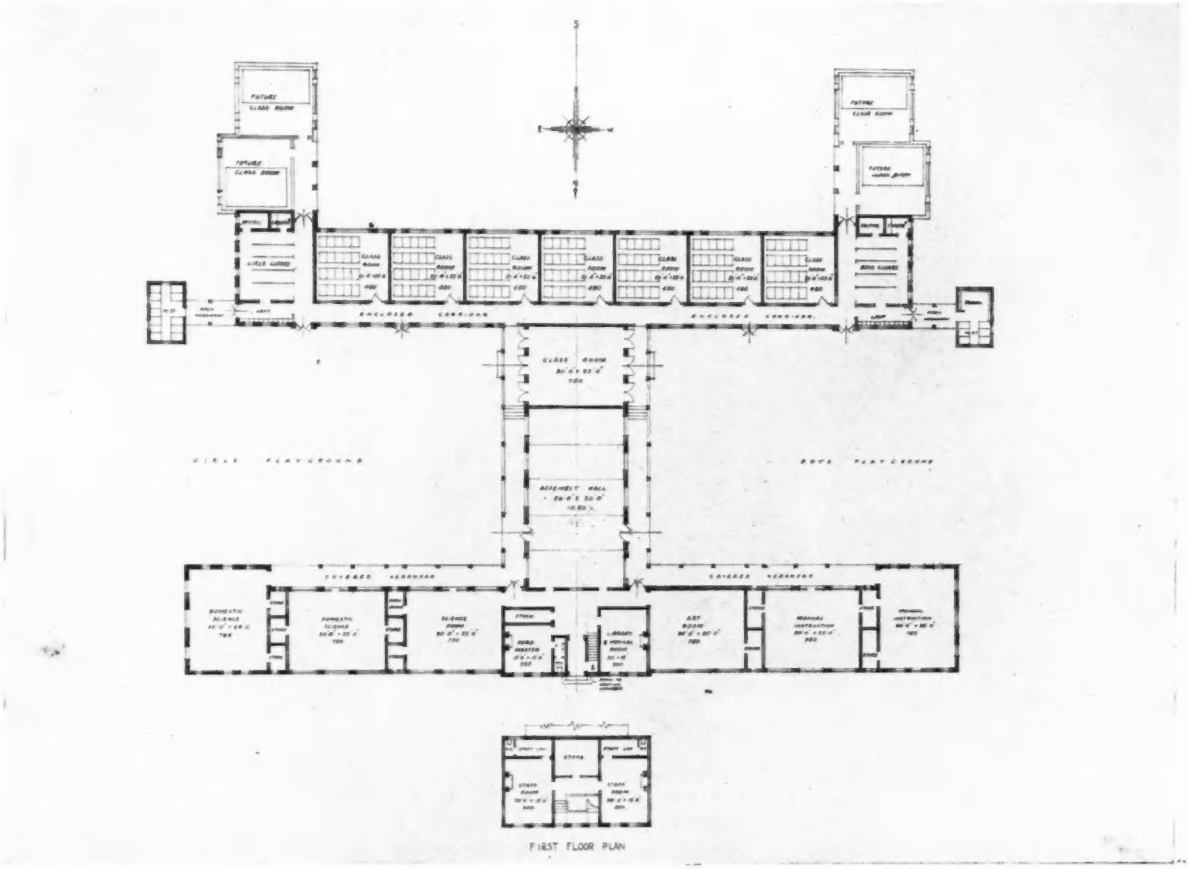
[NEXT WEEK: XVI—A SETTLEMENT AND AN UNSETTLEMENT]

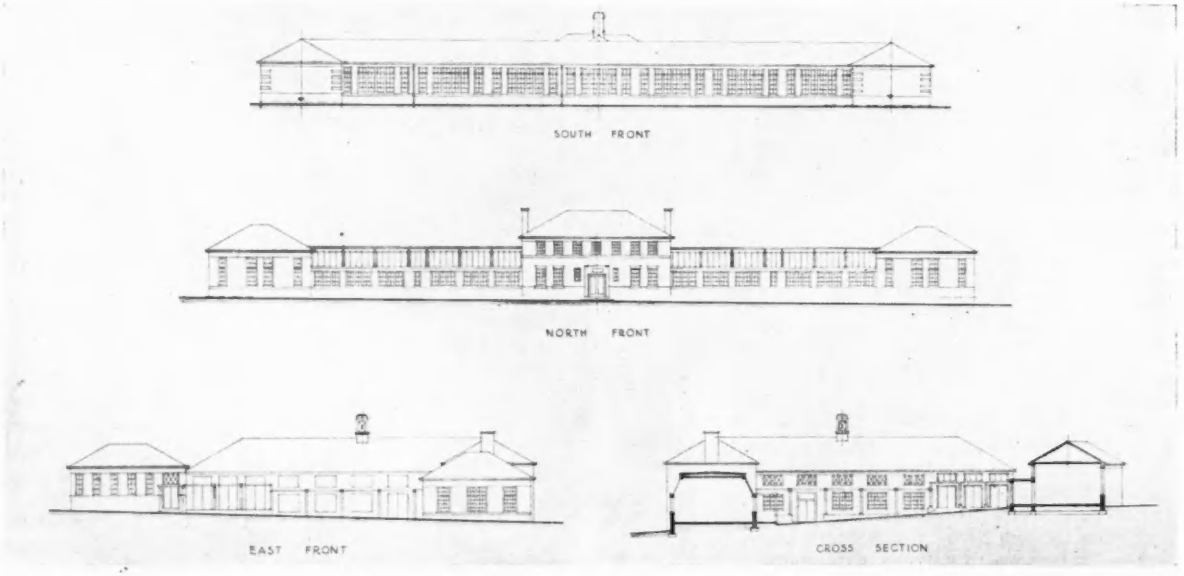
DUDLEY SCHOOLS COMPETITIONS: WINNING DESIGNS

Brewery Fields,
By Crouch, Butler & Savage

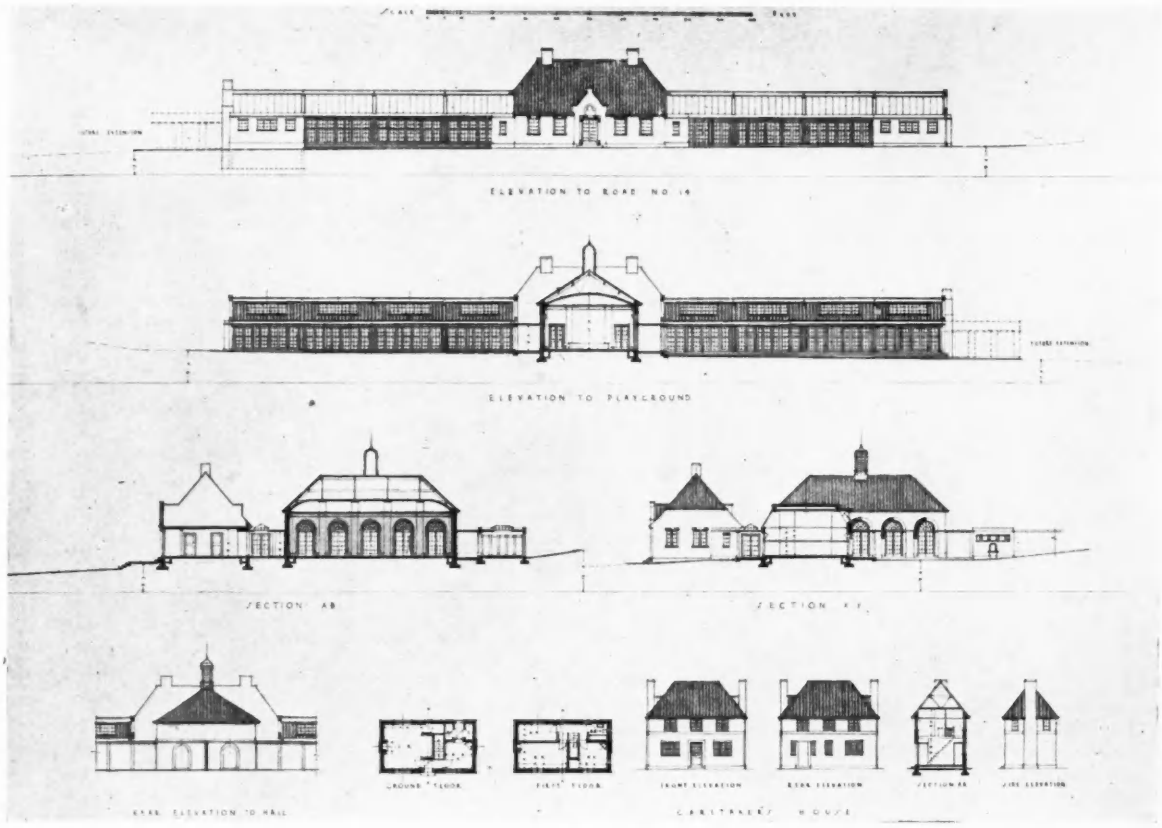
H. T. Buckland, Assessor

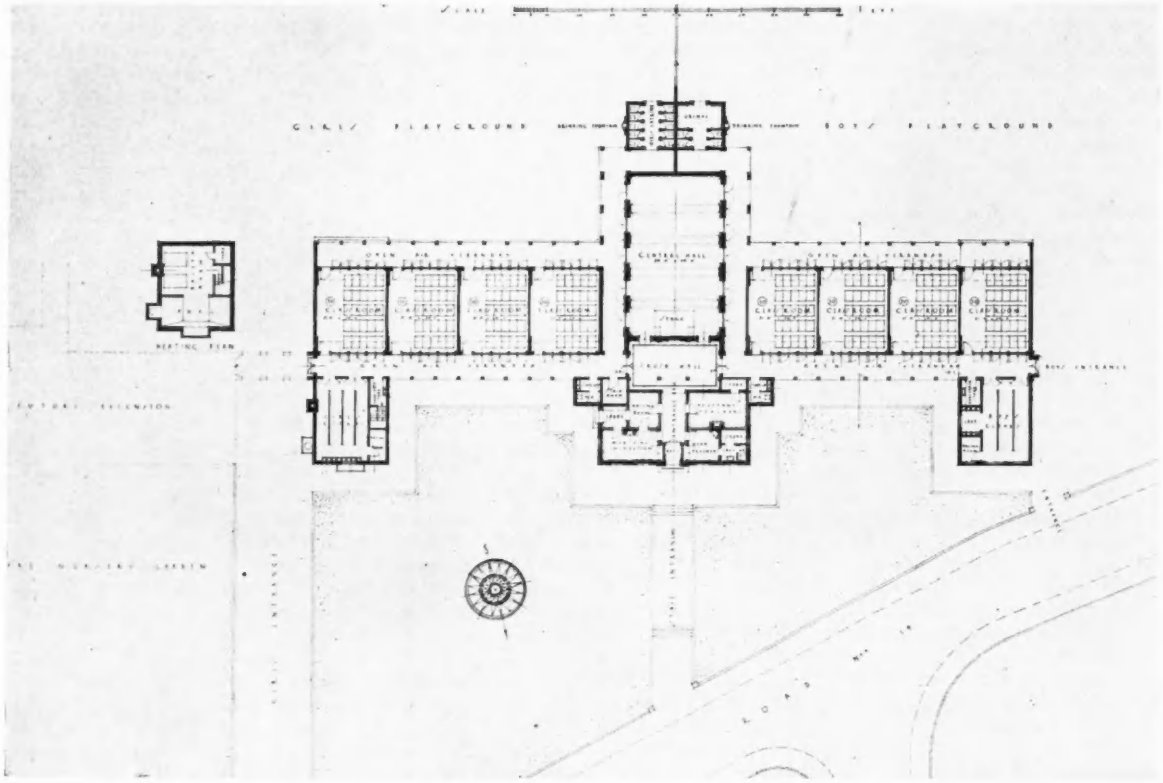
Priory Estate,
By Albert Bye





Senior Council School, Brewery Fields Estate. The first premiated design (£150) of Crouch, Butler and Savage, Birmingham. The other awards were: second (£100), Scott and Clark, Wednesbury; third (£50), Albert Bye, West Bromwich.





Junior Council School, Priory Estate. The first premiated design (£150) of Albert Bye. The other awards were: second (£100), Webb and Gray, Dudley; third (£50), Cooke and Twist, Birmingham.

THE SPECIFICATION WRITER

Dry Rot: Cause, Prevention, and Cure

BY W. P. K. FINDLAY, B.SC., A.R.C.S., D.I.C.

IN connection with dry rot the "prevention is better than cure" adage applies with great emphasis. Cure is both difficult and uncertain, but prevention is comparatively easy, once the predisposing causes of dry rot are thoroughly understood. "Dry" rot is a bit of a misnomer; it must be most strongly emphasized that dry rot cannot start in timber that is kept continually dry; experiments have shown that even when a floor is artificially infected with the fungus in active form, no attack takes place unless the moisture content of the wood is above 20 per cent. of the dry weight of the wood. But, once an attack has started, it can spread from the decayed area and attack sound dry wood, for the fungus can manufacture water by decomposing the wood and can transport it by means of its strands.

Preventive Measures

First, wood should not be used when in an unseasoned or green condition; decay may start up before it has had an opportunity to dry out. Here it should be noted that should seasoned wood be allowed to become wet again, it is scarcely, if at all, more resistant to decay than unseasoned wood. Hence timber piles should be covered if there is rain during building operations. The moisture content of the timber when it is put in should be as near as possible to the moisture content which it will finally attain in the building. The wood should contain the minimum of sapwood, which is very much more sensitive to decay and to the attacks of insects than heartwood. Sapwood should be bright; "blue stain," which is caused by a fungus that feeds on the contents of the cells and does not damage the walls to any extent, has been said to make the wood more susceptible to decay, but there is no very definite evidence for this; however, its presence does indicate that the timber has been exposed to damp conditions at some time, and it should be carefully examined for traces of decay.

Then the wood must be kept dry when in position in the building: the sources from which moisture may arrive at the timber in a building are as follows: the soil, the walls, the roof, by condensation from the air, and by leaks.

The accession of soil moisture by capillarity may be prevented entirely by the employment of an adequate proof course of slate or bitumen. The necessity of damp proof courses in solid floors upon semi-porous concrete is not always realized, and the Building Research Station have brought out various plans for providing these.

Little dry rot occurs in roofs unless there is an actual leak due to faulty tiles or leading, except in buildings, such as weaving sheds, where there is a high internal humidity with a consequently heavy condensation upon the cold roof; in such a case the provision of extra insulation in the roof will be found helpful.

Porous bricks or stone often lead to damp in the walls, and a cavity wall may be spoilt by the lumps of mortar left in between the two walls, as for instance, on tie wires. Joist ends frequently become decayed owing to the absorption of moisture from a wall, and some form of ventilation to the joist end should be arranged; the brickwork should not come in close contact with the joist on each face.

Condensation is the most difficult source of damp with which the architect has to contend, and it can only be combated by ensuring a circulation of dry air around the wood. Whenever wood is enclosed in such a way that there is not free access of air to it, there is always the risk that moisture will condense on the wood and decay will follow, if there happens to be infection about—as there usually is! The practice of bedding joists into concrete and of laying the floor directly on to the concrete has frequently led to dry rot, and in many places the use of linoleum on such floors is prohibited, at any rate during the first year of the life of a house. The use of these bedded-in joists is to be avoided where possible, and in some cases the wooden floor itself may be omitted with advantage and a material such as cork lino may be fixed directly on to the concrete.

Wall fixing plugs are another source of trouble and should be treated or, where convenient, replaced by breeze fixing blocks.

The maximum ventilation should be provided under floors and ventilating grids, arranged in such a way that there is a through ventilation. Ventilating pipes should be put into solid sleeper walls, which really are better built in honeycomb bond and must of course have their own damp proof courses. On a very wet soil, where the air used for ventilating may itself be damp, it may be very difficult to keep the timber dry without some form of heating, and the installation of central heating in an old house where there has been trouble with dry rot will often insure that there will be no further outbreaks. A word of warning may be given here about the danger of interference with the ventilation under floors by insulation to deaden sound. On no account should sawdust be used for this purpose, and some material such as slag wool, which is non-absorbent or retentive of moisture, should be used; and the wood should be treated.

To sum up the question of ventilation: if you cannot get any ventilation to the timber do not use untreated wood; steel, concrete or wood impregnated with creosote or a toxic salt solution should replace the untreated timber in such cases. As a definite rule never use untreated wood in contact with the soil at any point. It is a good insurance to brush-treat heavily all joist ends and similar danger points with preservative, even where ventilation is good: the cost of such treatment is trifling and may save large replacement costs later, but it should be pointed out that a thin brush treatment does not give full protection and impregnated timber only should be used at points where there is known to be danger.

(*To be concluded*)

IN regard to the ventilation of rooms fitted with gas-fires and geysers, the Minister of Health has circulated to local authorities model clauses in the following terms, with a recommendation that they shall embody them in their existing bylaws:

1: Every person who shall erect a new domestic building and shall fix a geyser or similar gas-heated water apparatus in any room therein shall, for securing the ventilation of the room, construct in connection with the geyser or apparatus an adequate flue:

a: of a diameter not less than that of the flue spigot at the top of the geyser or other apparatus;

b: fitted with a baffle as high on the flue as possible;

c: discharging either into a chimney not communicating with a habitable room other than that in which the apparatus is fixed, or directly into the external air, in which case the flue shall be fitted with a suitable terminal or outside windguard.

2: Every person who shall erect a new domestic building and shall, for the purpose of heating any habitable room therein, provide a gas-fire or other similar apparatus, shall for securing the ventilation of the room construct an adequate flue in connection with such gas-fire or apparatus. Such flue shall not communicate with any habitable room other than that in which the apparatus is fixed and shall discharge above the roof by means of a chimney or other suitable outlet.

Modern Swedish Timber Construction

NO one who has visited the more remote districts of Sweden can forget the strangeness of that landscape, lake-set, dotted over with timber-built dwellings, each painted a brilliant red. Until recent years wood was the chief building material of the greater part of the country; and although in the towns of the industrial districts brick and stone have superseded the more inflammable material, in the forest areas—which cover two-thirds of the whole—it is still employed in spite of the many disastrous fires which, from time to time, have laid waste whole townships. One result of these recurring conflagrations is the excessive width of many of the streets in such towns as Filipstad or Uddevalla, opening into large, grass-grown, depressing squares.

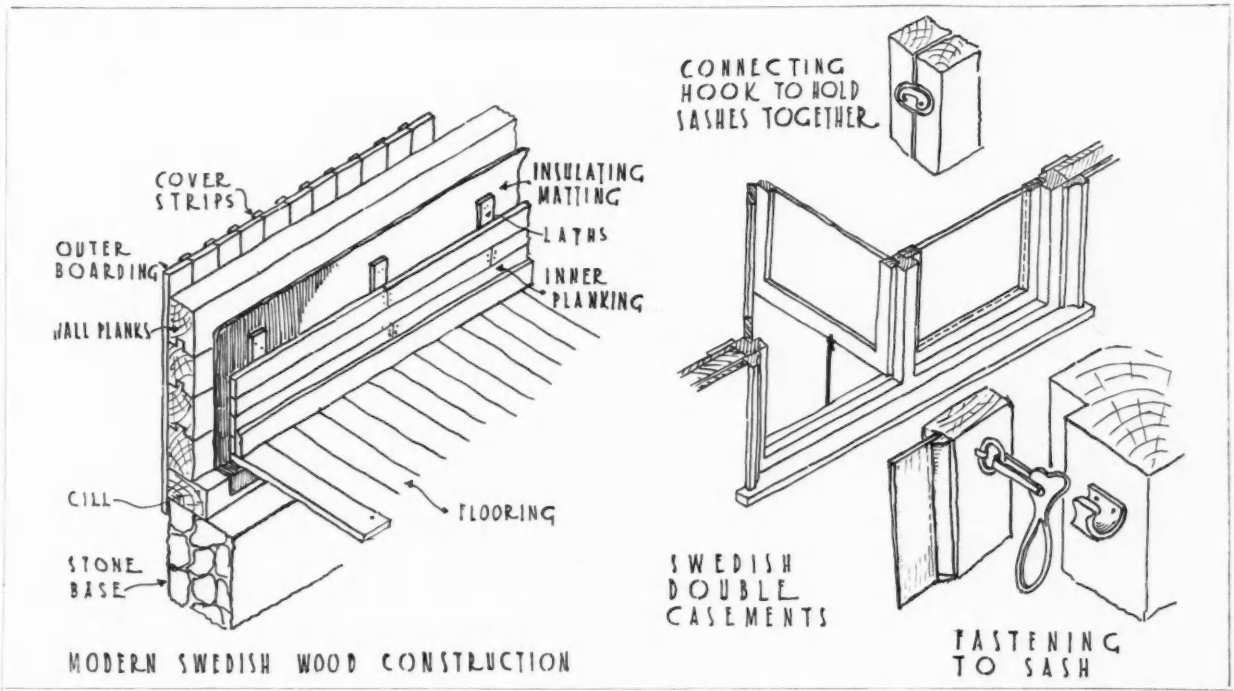


A typical old wooden house at Vadstena, Sweden. The partition walls, of logs, project through the outer walls ; the ends have been sheeted over.

But the appearance of flimsiness in the Swedish towns is only skin deep, for centuries of experience have taught the secret of making these wooden houses remarkably warm and snug throughout the long, dark winters. In the past the main walls were built of rough logs halved at the angles and placed one upon another. The partition walls, being also halved, often projected through the external walls, as in the illustration from Vadstena, where at a later date these projecting ends have been sheeted over to protect them. Another group of these old houses exists in Vasteras, with their timbers exposed and coloured the original red : all round them are the brick and stone buildings of the modern industrial town.

Internally, the walls had no coverings except in some cases quaint woven hangings, usually depicting some Biblical scene with the figures in the local dress of the periods, such as the Three Magi in riding breeches and shovel hats, and the Wise and Foolish Virgins in crinolines and puffed sleeves. In the country districts the most primitive roofs were composed of larch poles and birch bark covered with grass sods ; and the appearance of these old houses, when the grass sprouts thickly in the spring, gives them an almost human expression of surprise. From such houses one expects to see trolls emerge rather than sober farmers.

The modern builder, who has higher standards of comfort, begins his work by collecting the large glacier-rounded boulders that in prehistoric times have been scattered over the land, and cementing them together to form a low foundation wall a few feet high. On these rough walls are laid the sills and



Constructional details of modern timber construction in Sweden ; and of the special types of double casement-hung windows, with strong latches, described in the accompanying article.

the ground-floor joists. The walls are built of grooved and tongued planking about 9 ins. by 6 ins., laid horizontally one above the other, halved at the angles, and for the cross walls, which do not project beyond the general wall face. The first-floor joists are housed into this timber construction, or "väggplank," without wall plates, and cut off flush with the outer face as the partition wall planking. The flooring is laid directly upon these joists or "golvbjälken."

Roof rafters are also notched directly to the wooden walling, and openings for doors and windows are cut in it, so that the skeleton looks exactly like a large dolls' house. Over this plank wall are nailed externally vertical boards, called "ytterpanel," about 1 in. thick, the butt joints being covered with a thin strip nailed on. This strip is sometimes plain and sometimes chamfered at the edge, and this gives a pleasing variety to the wall of the finished house, especially when it is painted the universal red colour and contrasted with the white of the wide flat window architraves. The inner side of the "väggplank" is covered with some form of insulating felt or wood pulp matting, secured by means of vertical lathing, and to these laths are nailed the horizontal "innerpanel" of narrow planks.

In the best work this felt is taken between the floors and a slag wool filling is packed round the joists as further insulation, for these wooden houses are very noisy with both floor and ceiling covered with boards. The old houses had great stoves of brick with immense chimneys carried up through the roof, and these often occupied the whole end of the living place, and were built up on a raised hearth. Modern houses have dispensed with these great wood-burning hearths and are mostly central heated, or have the tall stoves like tiled wardrobes so common in Germany. But the fuel is still wood except in districts where electricity is cheap and easily tapped.

Windows are a special consideration in all Swedish houses, and the intense cold demands that they shall be double-glazed. The Swedes are an open-air but not an open-window race, and many houses screw up their larger openings and put up a second inner sash in the autumn which is not removed until the spring. Where windows are of the casement type, an ingenious double sash has been invented. This is an ordinary side-hung window with a second casement hinged to the outer side of the first. By means of two little clips these separate windows are held together and open like an ordinary casement. But in windy weather thay can be parted and fixed in the form of a triangle, the opening forming the base, as shown in the sketch. This allows of ventilation top and bottom and baffles even a strong gale blowing directly against the window, and also keeps out driving rain. The latches to these casements are simple and effective. A specially-shaped hook is fixed to the side of the mullion or frame. To the outer side of the casement, by means of a ring, is secured a long oval link pinned through one end to a handle having a specially-shaped head. The link is slipped over the hook with the handle held horizontally, and as the latter is pressed downward the head engages under the curve of the hook and the whole is drawn tight. Each casement is secured by two of these fastenings, which are more weather tight than the cockspur usual in this country.

Sometimes the interiors of the houses are papered and the walls rendered indistinguishable from plastered ones, but in many houses, following an old tradition, the planking is stained and stencilled with conventional patterns. The beautiful greys and greens of these stains set off the bright colours with which the moulded work is usually picked out. One of the most typical of these interiors may be seen in the modern village church of Säro, about twenty miles south of Göteborg.

LL. E. W.

The Durability of Concrete in Soil

THE acids normally found in soils, classed as the humic acids, are very weak and are without marked effect on cement products, but should the soil be contaminated with sewage or other material giving rise to stronger acids the concrete is liable to be disintegrated. The trouble arising from the presence of alkalies or alkali salts is more common and their effects are more apparent than those due to acids.

Disintegration of concrete in alkali regions is probably due to two causes :

1 : the penetration of saturated liquid into the pores and the crystallization there of the salts. The crystals so formed exert a pressure, similar to that exerted when water freezes in the pores of a stone, and disintegration may ensue.

It is thought that the above effect is usually insignificant, but it is possible that under certain conditions it assumes greater importance. The only method of reducing the danger of damage by this cause lies in making the concrete as impermeable as possible by careful grading of the mix and control of the water content. Some advantage might in certain cases accrue from the use of integral waterproofing compounds, but it is possible that increased deterioration might follow from their use in other cases by chemical action with the waterproofing compound.

2 : the chemical action of alkali salts in solution on the lime which is always set free in the setting of Portland cement.

The most frequent cause of trouble is the reaction of a soluble sulphate with the lime, forming hydrated calcium sulphate ($CaSO_4.2H_2O$), which takes place with an increase in volume and, consequently, disintegrates the concrete. This reaction is thought to be the most important cause of disintegration of concrete in alkali regions, and occurs similarly when concrete is attacked by sea-water. The fact that the rate of action is roughly proportional to the sulphate present confirms this view.

If ordinary Portland cement is used, the only methods of reducing the liability to attack lie in making the concrete as impermeable as possible, and, so far as works conditions allow, allowing it to be well cured before being placed in position, care being taken that every facility is given for carbonation of the lime on the surface to take place. In this way an inert layer is formed, and no solution can enter the bulk of the material.

As aluminous cements do not liberate lime on setting, they are less liable to injury in the manner indicated in (2) above, and have been used with advantage in alkali soils in certain districts. As with Portland cement concrete, every care should be observed to obtain a dense impervious mix.

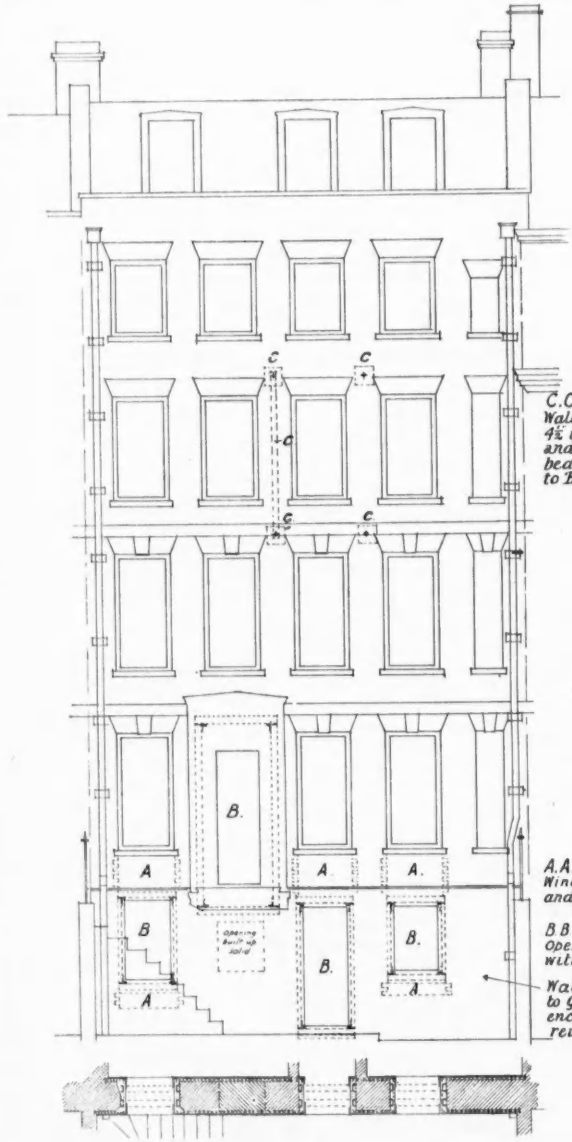
Another method of preventing the disruption of Portland cement concrete is to add pozzolanic material to the cement. Pozzolanas such as trass, burnt clay, burnt shales, etc., contain silica in a form capable of combining with lime in the cold to form calcium silicates, and, therefore, the amount of free lime, if not totally removed, is greatly reduced.

Work is now being undertaken at the Building Research Station with the idea of investigating fully the possibilities of Portland cement and pozzolana mixtures mentioned above.

[The above information is extracted from notes supplied by the Building Research Station.]

Underpinning : A Novel Method

NO. 28 Queen Anne's Gate has recently been renovated under the direction of Sir Aston Webb and Son. During the alterations, it was discovered that the basement piers of the front wall were in a bad condition, showing signs of fracture. It was also found that the ground-floor piers on either side of the entrance doorway had



C.C.C.
Wall plates recessed 4½ into brickwork and connected by beams and tie-rods. to Back Wall

A.A.A.
Window backs built up and bonded to piers

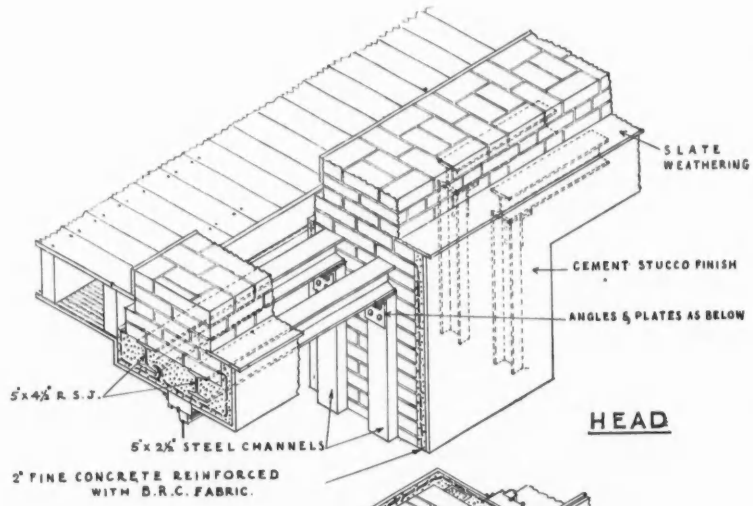
B B B
Openings strengthened with steel frames.

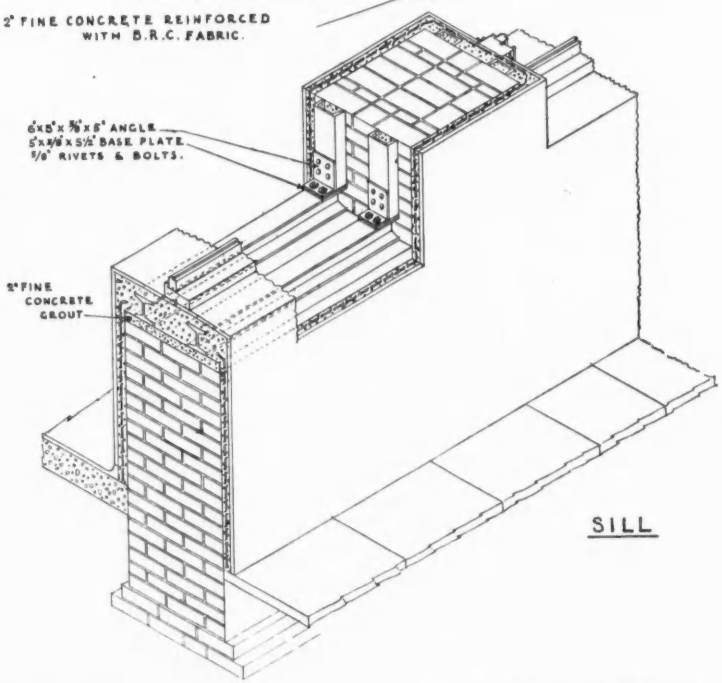
Wall from Basement to Ground floor encased in 2" of reinforced concrete.

UNDERPINNING.

A Novel Method.

The drawing reproduced on the left shows, in elevation and in plan, the general scope of the reinforcing methods described in the note beginning on the facing page. That on the right represents isometrically, on a larger scale, a head and sill.





No. 28 Queen Anne's Gate, S.W.]

[*Architects for renovations: Sir Aston Webb & Son.*

been cut back to accommodate a door of a later date than the original, and that the wall above, which varies from 18 ins. to 14 ins. in thickness, was out of plumb. The front 4½ ins. of this wall is practically a skin with no bond to the inner brickwork, and in all cases the window backs are only 9 ins. thick, with the result that the front wall is nothing more than a series of not too solid piers.

The house has no internal walls between the party walls on either side, all the partitions being of timber, and the weights being carried on heavy chestnut beams, most of which bear upon the narrow piers of the external walls.

Owing to the depth of the made-up ground under the foundations and the difficulty of shoring so as to allow of the basement piers being underpinned, it was decided, in consultation with Mr. B. L. Hurst, M.I.C.E., to retain these piers and stiffen them by means of frames fitted into the openings as shown in the isometric sketch (see page 351). When the frames were in position, the piers and walling from basement to ground floor were wrapped round with steel mesh, spiked into the joints of brickwork and encased in 2 ins. of fine concrete. The doorway on the ground floor was dealt with in a similar manner. As a result of this work, the lower part of the wall forms a solid beam capable of carrying the superstructure with greater safety than at any time since it was first built.

QUESTIONS THAT ARISE

Mixing Plaster

M. F. writes: "*Why do architects and text-books specify 'a pound of hair to 3 cub. ft. of plaster'? Surely, a labourer cannot measure it that way. Can your expert tell me of a suitable way of ensuring that you are putting enough hair in when mixing (other than seeing how much will overhang a trowel)?*"

I know of no other or better way of specifying proportion of hair to bulk of coarse stuff than the current one quoted. It is surely one of the functions of the builder and his representative, the general foreman, to translate specification directions into a form which his workmen can grasp. Hurst's *Architectural Surveyors' Handbook* will supply the proportionate quantities in relation to each yard super of plastering in various thicknesses.

To obtain the finest quality of hair, it is now necessary to specify "hair from an oak-bark tannery" as the normal method of dressing hides now uses sulphuric acid for removal of hair, leaving traces of acid in the hair, which, when mixed with wet plaster, is apt to become brittle or even perish entirely. E. G.

Profit on Doors

"Builder" writes: "*I have just completed a contract for the erection of a pair of houses. In the specification appeared the clause, 'Provide the p.c. sum of £30 nett for standard doors, to be obtained from an approved firm.' I was asked to fix, and add for profit, and so included 10 per cent., i.e., £3, for the latter. The client, however, bought up enough doors for the job, and I formed the openings and made the frames to suit these. He paid carriage to the job, and I unloaded. The architect, in settlement of my account, has refused a profit of 10 per cent. on the cost of the doors, and will only allow for fixing. I contend that I had to accept delivery and had the care of the doors on the job, and am therefore entitled to profit.*"

If "Builder" was asked to be responsible for the safe custody of the doors on the works, I do not think he is unreasonable in asking for a 10 per cent. profit on the doors supplied by the employer.

If the architect or employer did not ask your correspondent to take responsibility, he would not be in any way to blame if they were "stolen or strayed." If any item is provided direct by the employer I consider that the builder should be informed and that an allowance of 10 per cent. (a reasonable profit) should be allowed, to cover unloading, unpacking, care and preservation, etc.

I am, however, all against taking work in this manner out of the builder's hands, and make a practice myself of seeing all work is carried out through him.

W. E. K.

Corrosion of Railings

A. L. P. writes: "*I have noticed that the majority of wrought iron railings, after some years, where leaded into curbing, show signs of corrosion at the feet. Is this caused through carelessness in maintenance as regards painting; galvanic action between lead and iron through moisture; or by inefficient weathering of curbing? Is there any method of building in, other than by leading?*"

The corrosion complained of is to be seen in almost any wrought iron railing that has been caulked to stone or concrete with lead. This is generally regarded as being due to galvanic action set up by the presence of moisture.

In order to avoid such occurrences, many architects specify that the fixing of the bars must be done by pouring in molten sulphur, but, on the other hand, chemists state that sulphur, so used, does not set in a satisfactory manner.

Another method is to caulk with neat Portland cement, but in this case the end of the bar should be first dipped in some bituminous liquid. This, however, I do not consider a good job, for unless care is taken the cement will crack and loosen the bars to the railing.

A number of curbs I have seen are insufficiently weathered, and the caulking is often carelessly done, being pressed in below the level of the curb. Small pin points in the lead are gradually weathered to allow small pools to form.

Despite all the complaints regarding this type of work, I am all for caulking with lead if careful attention is given to both weathering of the curb and the caulking, as well as preservation of the work by painting at the necessary periods.

J. H. G.

Lightning Conductor

D. B. writes: "*I am erecting a church, with a tower, which has four turrets. I have been told that it will be necessary to have a terminal to each of the turrets. I, myself, cannot see any reason for more than one conductor, as this should attract any lightning. What is your expert's opinion on this question, and what are the best materials to use?*"

The science of lightning conductors is seldom understood. They are not pieces of apparatus put up to attract lightning, but a metal through which the discharge most easily reaches the ground.

A lightning flash is only a spark of an arc lamp on a gigantic scale, and when, owing to the unstable conditions of the atmosphere, it takes place between an electrically charged cloud and the ground, it travels by the nearest route.

If an unprotected pinnacle is nearer than one armed with a conductor, the flash will pass through it and not seek the other, therefore the four turrets should each have a terminal coupled to the conductor which runs to earth. Damage is caused by the material struck having what is called a high resistance and presenting a check to the passage of the discharge.

Copper has a low resistance; the lightning, passing more easily through it than through stone or iron, follows the conductor tape to the ground, and no harm is done.

It is particularly important to see that the base plate to the conductor is round and in moist earth, or the discharge, finding a resistance here, may run off the tape on to a rain-water pipe and cause damage.

The material should be copper tape—not copper rope—and be soldered to the base plate. J. E. B.

LITERATURE

REPARATION WORK

IT should not be forgotten that all materials used in the building industry are chemicals of varying activities; all are perishable in varying degrees, and to use them in an intelligent manner the guidance of properly administered scientific knowledge is necessary.

As Mr. Warnes writes, in this exceedingly interesting little booklet, in reparation and also restoration works consideration must be given to (a) the cause or causes of decay, be it in stone, brick, terra-cotta, timber or other building material; (b) the history of the structure and its situation geographically; (c) the stability of the structure and how to carry out stabilizing works satisfactorily with the least disturbance of the original work; (d) the best method of cleaning the various parts of the structure; (e) if the portions requiring attention are in stone, brick or terra-cotta, whether plastic repairs or new material is the better to employ, or if timber, whether by a process of strengthening it can be allowed to remain or if it had better be replaced by material of a similar kind; (f) the special methods of preparation before carrying out the repairs and whether the finished work is to be reproduced to the original detail or to be left to match the aged material in juxtaposition; (g) the best method of dealing with plaster work of historic value, and also of wall paintings and probable frescoes; (h) the somewhat difficult problem of cleaning and refixing, in certain instances, medieval stained glass; (j) the possible need of metal reinforcement in various situations; (k) the erection of special scaffolding and shorings.

The author investigates the causes of decay in stone, brick and terra-cotta, timber, wall paintings, plasterwork and stained glass, and gives some useful hints on reparation work. He shows eight illustrations of work which has been well carried out and of that which has been badly done. One of the illustrations (reproduced below) shows how caustic soda, when used in a cleaning process, ultimately damages stone.

Notes Relative to Reparation Works. By Arthur R. Warnes, F.I.C., A.INST.P., M.I.CHEM.E., A.I.STRUCT.E.



From Notes Relative to Reparation Works] [*By Arthur R. Warnes.*

An example of how caustic soda (used in a cleaning process) ultimately damages stone.

Mr. T. Cecil Howitt, the former Nottingham housing architect, in an article entitled *Municipal Housing Record* which appears in The Trades Union Congress souvenir handbook, claims that Nottingham has produced far more houses per head of the population than any other town in the world.

OBITUARY

JAMES B. DUNN: 1861–1930

It is with deep regret that we record the death of Mr. James Bow Dunn, R.S.A., F.R.I.B.A., who died on August 25, after an operation, at the age of sixty-nine.

Mr. Dunn, who was a native of Pollokshields, was educated at George Herriot's, travelled on the Continent, and was articled to the late Mr. James Campbell Walker, of Edinburgh. He commenced practice in 1895.

Among the competitions for which he received premiums were those for the library of the Society of Solicitors, Edinburgh; the Adam Smith and Beveridge memorial halls, Kirkcaldy, Fifeshire; public library, Edinburgh, and, in 1928, the new buildings for the George Watson's College, Edinburgh. The latter competition was fully illustrated in our issue for June 13, 1928.

His other work in Edinburgh includes the *Scotsman* building (in partnership with Colonel J. L. Findlay); the Wesleyan Methodist halls, the Ladies' Club, the Victoria buildings, and the Dean and Charteris memorial churches. He also built mansion houses at Balnacraig and Glenfarg, Perthshire, Beechholme, Edinburgh, Dromore, Gullane, Nether Caberstone, Peebles-shire, Bellenden, Inverleithen, and Gargrave House, Yorkshire. He was responsible for the reconstruction of Blair Drummond, Perthshire, and Haggerston Castle and Carham Hall, Northumberland.

Mr. Dunn was elected a Fellow of the R.I.B.A. in 1905; president of the Edinburgh Architectural Association in 1910, a position which he occupied for one year; and an associate of the Royal Scottish Academy in 1918. He became a full member of the Academy, in company with another Scottish architect, Mr. James Miller, F.R.I.B.A., last February.

D

He was a keen fisherman, and was also much interested in gardening. He married Catherine Norman, daughter of Mr. John Ballantyne, of Stoneyhill, Walkerburn, and had one son and two daughters.

ALFRED A. HUDSON : 1852–1930

The death of Mr. Alfred Arthur Hudson, K.C., HON. A.R.I.B.A., occurred, after a short illness, on August 21, at the age of seventy-eight.

The eldest son of Mr. Henry Hudson of Winchester, he was educated at private schools and at Morat in Switzerland. He was called to the Bar by the Inner Temple in 1885, and was afterwards elected a Bencher.

Mr. Sydney Tatchell, F.R.I.B.A., in a recent issue of *The Times*, writes : The death of Mr. Alfred Arthur Hudson will, I know, bring a sense of personal loss to those—and their name is legion—who have had the privilege of knowing him as friend and counsellor. Apart from his work at the Bar, he was a man of wide interests and masterly achievement. Whether in the beautifying of the landscape surrounding his delightful home in Buckinghamshire, or in the architectural embellishment of the Benchers' rooms in the Inner Temple, he brought to these tasks the enthusiasm of youth, the spacious outlook of experience, and the cultured taste of an artist.

His early years were devoted to the study of architecture, and the knowledge and interest then acquired enabled him to bring to the solution of the many building problems submitted to him a ready understanding of their technical as well as their legal aspects. The R.I.B.A., in electing him in 1902 an Honorary Associate, acknowledged the valuable services he had rendered to the Institute and the profession generally.

A man of great personal charm, manifest alike in Court and in chambers, Mr. Hudson inspired the utmost affection and loyalty in those with whom he was associated. In the hearts of his friends and colleagues there will remain a fragrant memory of a very great and chivalrous gentleman.

SELWYN IMAGE : 1849-1930

Mr. Selwyn Image, poet, artist in stained glass, and twice Slade Professor at Oxford, died recently at his home in Holloway, at the age of eighty-one. It is a remarkable coincidence that Mr. Image, who was a prominent figure in art circles of the latter part of the nineteenth century, died and was also buried on the same day as Sir Aston Webb.

Mr. Image, born at Bodiam, the son of a country clergyman, was educated at Marlborough and went up to Oxford as an exhibitioner. He took his degree in 1872, and was ordained in the same year to the curacy of All Hallows, Tottenham. He transferred to St. Anne's, Soho, in 1876. After four years at St. Anne's, he gave up the clerical life in order to devote himself entirely to the arts and literature. With his friends Mr. A. H. Macmurdo and the late Mr. H. P. Horne, he founded *The Hobby Horse*. In this journal much of Image's writings appeared. Of his verse he only published one volume, *Carols and Poems*, but, besides this, many of his poems have been from time to time privately printed. But the field of art which Image made particularly his own was that of stained glass. His windows at St. Luke's, Camberwell, and in Morthoe Church, Devon, are excellent examples of his work.

In 1901 he became Master of the Art Workers' Guild. He was also appointed to the Slade Professorship in 1910, and again for a second tenure in 1913. His predecessor in this office was John Ruskin, by whom he was greatly influenced.

CHARLES FLINT : 1873–1930

We regret to record the death of Mr. Charles Flint, L.R.I.B.A., of The Quadrant, Buxton. A son of the late Mr. Thomas Flint, the deceased served his articles at Stoke-on-Trent. Subsequently he became a partner in the firm of Garlick and Flint. He was responsible for a large amount of public and private work in Buxton and the surrounding district.

ELECTRICITY *v.* GAS

Mr. H. R. Kemple, in a recent issue of *The Surrey Mirror*, writes :—

I have often been asked : " Can we not heat our church or building economically by electric, instead of by gas radiators? "

As far as I have been able to find, the answer to this direct question has never been definitely and plainly laid down; for the benefit, therefore, of those who are perplexed in regard to the matter, I give the following :—

If the cost in pence of one unit of electricity is equal to—

(cost in pence of 1,000 cub. ft. of gas) × ·03415 ÷ (therm value of 1,000 cub. ft. of gas)

then the cost of heating by electricity will be precisely the same as the cost of heating by gas.

Take the case of gas as supplied by the East Surrey Gas Company : Their charge in pence for 1,000 cubic feet of gas is " 60," and the therm value of their gas for 1,000 cubic feet is " 4·5d.," therefore—

$$\frac{60 \times \cdot03415}{4\cdot5} = \cdot4553\text{d.}$$

which means that unless we can obtain electricity at ·4553d. (or rather less than ½d.) per unit, it would cost more to heat by electricity than by gas.

A simpler rule, and one easily recollected, is the following : Divide the cost per therm by 30; this will give almost exactly the same result. Thus the East Surrey Gas Company charge is 13·4d. per therm; then 13·4 divided by 30 gives ·45d. as the required cost of electricity per unit.

COMPETITIONS OPEN

September 8.—The Burton-on-Trent Local Education Authority invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor : H. T. Buckland, F.R.I.B.A. Premiums : £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should be made on or before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Deposit £1 1s. Latest date for submission of designs : October 1, 1930.

September 30.—The Isle of Man Education Authority invited architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums : £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs : September 30.

October 30.—The Maternity and Child Welfare Committee of the City of Birmingham invites architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor : A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs : October 20.

October 30.—The General Building Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums : £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs : October 30, 1930.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office,

Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young Communist Square), and will contain a mass musical stage and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb. 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, SEPTEMBER 3

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Pieces in Concrete Piles." By M. J. C. McCarthy, A.M.INST.C.E., A.M.MECH.E. "Stresses in Dams." By S. D. Carothers. "A Study of Plain and Reinforced Concrete Retaining Walls." By Ewart S. Andrews, B.SC., M.INST.C.E. "Reinforced Concrete in Great Britain." By A. Kirkwood Dodds, M.C., M.SOC.C.E. (FRANCE). "Reinforced Concrete in Engineering: Representative Examples of British Practice." By M. Gerard, M.SOC.C.E. (FRANCE).

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

THURSDAY, SEPTEMBER 4

INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE. At Liége. "Work of the Building Research Station on Small Movements in Concrete." By Dr. W. H. Glanville, B.SC., A.M.INST.C.E. "The Effect of Temperature on Flat Arches Constructed of Reinforced Concrete." By C. S. Gray, B.SC., A.M.INST.C.E. "Temperature and Cement." By Dr. Oscar Faber, O.B.E., M.INST.C.E.

SATURDAY, SEPTEMBER 6

Sunrise, 6.19 a.m. Sunset, 7.37 p.m.

XII. INTERNATIONAL CONGRESS OF ARCHITECTS. In Budapest. September 6 to 13. Opening of International Exhibition of Architectural Designs in the Picture Gallery of the Hungarian Scientific Academy. **10 a.m.**

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. South-Western District Meeting, to be held at Bath.

SIXTH INTERNATIONAL ROAD CONGRESS, to be held at Washington. Until September 11.

TUESDAY, SEPTEMBER 9

ASSOCIATION OF PUBLIC LIGHTING ENGINEERS. Annual Meeting and Conference, to be held at Leicester. Until October 11.

THURSDAY, SEPTEMBER 11

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Furniture." 12 noon. "Italian Decoration." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

FRIDAY, SEPTEMBER 12

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North-Western District Meeting, to be held at Runcorn.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Furniture." By Miss M. Chamot. 12 noon. "Gothic Woodwork." By T. F. Wilson, F.R.S.A.I. 3 p.m. **12 noon.**

SATURDAY, SEPTEMBER 13

Sunrise, 6.30 a.m. Sunset, 7.21 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

WEDNESDAY, SEPTEMBER 17

INTERNATIONAL BUILDING TRADES EXHIBITION, Olympia. Until October 1.

BRITISH GLASS CONVENTION. At Buxton. Until September 20. Morning: Meeting of the Council of the Society of Glass Technology. Afternoon: General Meeting of the Society of Glass Technology Evening: Informal Presidential Reception of members and their friends at the Palace Hotel.

THURSDAY, SEPTEMBER 18

BRITISH GLASS CONVENTION. At Buxton. Morning: Official welcome by the Mayor and Corporation of Buxton, at the Peak Buildings. Presidential Address. Discussion on "Elimination of Waste in the Glass Industry," to be opened by Dr. Miles. Official luncheon. Evening: Mayoral Reception at the Palace Hotel.

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition in the Galleries of Drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.). Until September 30. **10 a.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussions on "Marketing Methods in the Glass Industry" and "Public Propaganda in the Glass Industry," to be opened by Sir Francis Goodenough, C.B.E., and H. Gordon Selfridge, respectively. Afternoon: Golf Competition for championship of the Glass Industry. Evening Banquet at the Palace Hotel.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Meeting to be held at Southampton.

SATURDAY, SEPTEMBER 20

Sunrise, 6.41 a.m. Sunset, 7.5 p.m.

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussion on "The Convention—Present and Future," to be opened by Mr. Walter Chance, M.A., J.P.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass (1)." 12 noon. "Stained Glass (2)." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North Wales District Meeting, to be held at Bangor.

WELSH SCHOOL OF ARCHITECTURE, Technical College, Cardiff. Latest date for submission of application forms for the Scholarship Examinations.

MONDAY, SEPTEMBER 22

NORTHERN POLYTECHNIC, Holloway, N.7. Commencement of new term.

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS. London and Home Counties Branch. Dinner and Dance to be held at the Quadrant Restaurant, Regent Street, W. Tickets, 7s. 6d.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Yorkshire District Meeting, to be held at Hipperholme.

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Continental Glass." 12 noon. "English Domestic Glass." 3 p.m. Both lectures by Miss B. Goldsmid. **12 noon.**

MONDAY, SEPTEMBER 29

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Sanitary Inspectors' Course. **6 p.m.**

TUESDAY, SEPTEMBER 30

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. "The Making of a Cathedral—Liverpool." By E. W. Harvey-Piper. (Lantern Illustrations.) **7 p.m.**

ISLE OF MAN GRAMMAR SCHOOL COMPETITION. Latest date for submission of designs.

WEDNESDAY, OCTOBER 1

BURTON-ON-TRENT SCHOOL COMPETITION. Latest date for submission of designs.

FRIDAY, OCTOBER 3

TOWN PLANNING INSTITUTE. Twelfth Annual Country Meeting, to be held at Leicester. Until October 5. Full particulars are not yet available.

SATURDAY, OCTOBER 4

Sunrise, 7.4 a.m. Sunset, 6.53 p.m.

MONDAY, OCTOBER 6

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Commencement of Winter Term.

WELSH SCHOOL OF ARCHITECTURE, Technical College, Cardiff. Commencement of School Year.

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Smoke Inspectors' Course. **6 p.m.**

TUESDAY, OCTOBER 7

R.I.B.A., 9 Conduit Street, W.1. Closing date for applications for admission to the Intermediate Examination.

THURSDAY, OCTOBER 9

C.P.R.E. Third Annual Conference, to be held at Welwyn Garden City. Until October 11. Among the papers to be read are the following: "The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields." By Sir Lawrence Chubb. "Town and Regional Planning in their Relation to the Objects of the C.P.R.E." By Sir Theodore Chambers, K.B.E., F.S.I. "Education and Citizenship in their Relation to the Safeguarding of the Countryside, etc.," and "Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds." Each paper will be open to discussion.

MONDAY, OCTOBER 20

BIRMINGHAM WELFARE CENTRES COMPETITION. Latest date for submission of designs.

TUESDAY, OCTOBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "English Ironwork." By Edward Yates. **7 p.m.**

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

A SURVEY OF HOTEL DESIGN

BY HERBERT W. MATHEWS

IT will be agreed that it is of the utmost importance that the hotel shall make a good "first impression," because in the absence of a previous visit the patron, after satisfying himself upon his survey of the outside of the house that it is such as he thinks will meet his views, is apprehensive and keen in his observation of the atmosphere prevailing upon his entry. The entrance hall should be light, well ventilated, heated, and spacious, without undue encumbrance by way of superfluous or "fussy" fitments or furnishings; the reception bureau should be in view of the entrance and not be cramped.

The lounge should be in close proximity to, and have an appearance of forming part of, the main hall, but screened therefrom by clear glass screens. Care should be taken that, whilst the lounge be "on view" from the hotel entrance, the arrangement of chairs and settees should be such that the incoming guest is not embarrassed by being "sized-up" by the guests already in occupation.

Where a lift is necessary it should be quite close to the reception bureau and should be well lighted, and light in colour decoration, and of ample size. In my opinion the lift should not be in the well of the staircase, which latter, for appearance, light and safety from fire panic, should be entirely free and a distinctly separate unit from the lift shaft.

The dining-room and other principal public rooms should lead directly from the lounge hall, and if possible form "a suite," with wide folding doors from the entrances and from each to the other, and the door to the dining-room should, as nearly as possible, be opposite and near the lift and staircase.

In the planning of the dining-room it is important to have all the window frontage possible; it should be entered by wide folding doors from the hall, and should be a distinct projecting wing so as to provide windows on at least two and preferably three sides; almost every guest likes a table "near the window."

In furnishing the dining room, only the actual articles needed for seating, tables, and service should be included; floral table decorations should be low in height to avoid obstruction of guests' views of each other at the same table; and if space allows, there should be simple displays of palms or other suitable plants in tubs, judiciously spaced, to a height of about 5 ft. in some part of the room to meet the wishes of those who desire some privacy at meals; this need not be general, as the majority of guests like a full view of the room and their fellow-diners.

There should be ample provision for writing in every public room; whilst central heating is essential, an open fireplace should be provided in each room, plainly designed, and in a position to be seen from every part of the room and not adjacent to, but within view of the doorways.

The electric lighting must have special care; there should be no bare lights, all fitments giving a reflected light; and whilst due regard should be had to economy in consumption of current, it should not be stinted; in some parts of the rooms the light should be subdued, and this effect can be best obtained by distribution of floor and bracket fitments, all separately and locally controlled.

Staircases should be open and the risers should be easy.

Landings and corridors should be wide, and lighted and ventilated by windows as much as possible.

Bedrooms are of paramount importance; they should be designed to fit the furnishings, and not the furnishings to fit the rooms.

The positions of doors in relation to bedsteads, fireplaces and windows are points which must have careful study. Every room should have hot and cold running water, the basin being as far as possible from the head of the bed and so placed as to have the maximum of window light.

Electric light and bells should be from plugs at the sides of bedsteads, and thus a table light can be used or an attachment to the head of the bedstead can be made both for the light and bell and so add to the comfort of the occupants. Dressing table lights should be situate so that the light is on the face and not at the back of the head.

Furnishing should be simple but comfortable, and mouldings both in same and in the building joinery should be strictly avoided.

Maids' service should be centrally situated, to avoid delay in answering bells, etc.

There cannot be too many baths, both public and private; simplicity of fittings is desirable from the point of view of both use and maintenance.

Now I come perhaps to the most important of all the departments, viz., the kitchens, services and cuisine. These should be placed in a position close to the dining-room with the disposition of the various sections in convenient juxtaposition to each other; the kitchen and still-room must be distinct and yet placed adjacent to the common services, which must be in close proximity but camouflaged and blocked off by double service doors and in-and-out lobbies from the dining-room.

[The above article, slightly abridged, is reproduced from *The Hotel Review*.]

SOCIETIES AND INSTITUTIONS

R.I.B.A. COUNCIL MEETING

Following are some notes from the minutes of a recent meeting of the R.I.B.A. Council :—

The R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association School of Architecture, 1930.—The Board of Architectural Education reported that in the competition for this studentship conducted at the Architectural Association School of Architecture, two students, Messrs. D. C. McDonald and A. V. Nunn, were placed first, and that, as a matter of urgency, they had approved the division of this studentship of £50 between the two students.

The R.I.B.A. Maintenance Scholarships Committee.—It was decided, on the recommendation of the Board of Architectural Education, to appoint the chairman of the allied societies' conference as an *ex-officio* member of the Maintenance Scholarships Committee.

The New R.I.B.A. Bylaws.—It was formally reported to the Council that the Privy Council had approved the new R.I.B.A. bylaws.

The Code of Professional Practice.—It was decided, on the recommendation of the Practice Standing Committee, to amend the first paragraph of clause 3 of the Code of Professional Practice to read as follows: "An architect must not advertise nor offer his services by means of circulars or otherwise."

Revision of the R.I.B.A. Scale of Charges.—The revised scale of charges, as recommended by the special committee on the scale of charges and the Practice Standing Committee, was provisionally approved and will, subject to the terms of Bylaw 38, be submitted for ratification at the council meeting on October 20.

Students.—The following probationers were elected as Students of the R.I.B.A. :—

Briggs, O. G. V. (University of London).
Burton, J. W. (Northern Polytechnic).
Comber, E. E. (Architectural Association).
Dallas, H. N. (Bombay School of Art).
d'Avoine, P. A. (Bombay School of Art).
Reith, W. J. (Robert Gordon's Colleges, Aberdeen).
Taylor, W. R. H. (Robert Gordon's Colleges, Aberdeen).
Uren, R. H. (Special Exemption).
Walker, W. C. (Robert Gordon's Colleges, Aberdeen).
Worsnip, J. V. (University of Liverpool).

THE WELSH SCHOOL OF ARCHITECTURE

The Welsh School of Architecture, which has been granted the status of "Final Recognition" by the R.I.B.A., is accommodated in excellently furnished and well-equipped new studios, lecture rooms, library, etc., in the new wing at the Technical College, Cardiff.

At this College, ten scholarships, covering tuition fees and maintenance grants of £40 per annum for three years, are offered for competition annually. As candidates for entry to the Welsh School of Architecture are eligible to compete for these scholarships, they are of considerable interest to those contemplating entering the architectural profession. The scholarship examination is a competitive one, and is of about the same standard as matriculation.

The school has now been at work for rather more than ten years, under the charge of Mr. W. S. Purchon, M.A., A.R.I.B.A.; the lecturer in architecture is Mr. R. H. Winder, M.A., A.R.I.B.A., and the assistant lecturer, Mr. Lewis John, M.A., B.ARCH., A.R.I.B.A.

The following local architects assist in the work of the advanced course as honorary lecturers: Messrs. Percy Thomas, F.R.I.B.A., Ivor Jones, A.R.I.B.A., T. Alwyn Lloyd, F.R.I.B.A., M.T.P.I., H. Teather, F.R.I.B.A., A. L. Thomas, F.S.I., M.T.P.I., C. S. Thomas, F.R.I.B.A., J. H. Jones, F.R.I.B.A., C. F. Jones, A.R.I.B.A. Students in the Department also attend courses of instruction in the Departments of Engineering, Technical Chemistry, Mathematics, Physics, and the School of Art, all of which are housed in the same building; while special lectures on (a) Geology of Building Materials, (b) Growth, Characteristics and Diseases of Timbers, and (c) Law as Applied to Professional Practice, are given respectively by Messrs. F. J. North, D.SC., F.G.S. (Keeper of Dept. of Geology, National Museum of Wales), H. A. Hyde, M.A., F.L.S. (Keeper of Dept. of Botany, National Museum of Wales), and E. W. David, LL.B. The external examiners are Professor L. B. Budden and Mr. L. H. Bucknell.

The three years' full-time day course leads to the award of the certificate, to the holders of which the R.I.B.A. grants exemption from its Intermediate Examination, while those students who successfully pass through the diploma course are exempted from the R.I.B.A. Final Examination. This diploma course follows the certificate course and consists of two sessions, the former of these being of six months' duration only, the intervening six months being spent in architects' offices.

There is also an evening atelier for architects' assistants who cannot attend the day courses.

The Department is in close touch with the South Wales Institute of Architects, representatives of this body being on the Advisory Committee of the School, and students of the school are eligible for the prizes awarded by the Institute. In addition to these awards, there are a number of school prizes presented in the main by local architects.

The school year commences on Monday, October 6, but intending students are advised to apply at an early date for the particulars of the courses of instruction and of the entrance and scholarship examinations. Candidates for the latter should obtain application forms, which must be completed and submitted by September 20.

LAW REPORT

ALLEGED OBSTRUCTION OF LIGHT

Groves and Sons v. *C. Jolliffe. Chancery Division. Before Mr. Justice Bennett*

THIS was an action by Messrs. John Groves and Sons, Ltd., of Weymouth, wine and spirit merchants, and Mr. P. S. Graham, of the American Stores, New Street, Weymouth, their tenant, against Mr. Charles Jolliffe and his wife, of the Ritz Café, Weymouth, seeking an injunction to restrain the alleged obstruction of the access of light to the American Stores.

Mr. Preston, K.C., for the plaintiffs, said the plaintiffs complained that the obstruction to the light was caused by a building being erected by the defendants in New Street, opposite the plaintiffs' stores. Plaintiffs' case was that the access of light to the window of the bar would be diminished by the defendant's building, and that a substantial nuisance would be caused because the bar was already inadequately lighted. The premises were fully licensed premises, and the tenant Graham was in occupation under a lease running from January, 1924, for twenty-one years.

Mr. Crickmay, architect, of Weymouth, called for plaintiffs, gave it as his opinion that the defendant's premises would cause such a reduction of light to plaintiffs as to be detrimental to plaintiffs' business.

Mr. A. Ackerman, a lighting expert, also gave evidence in support of plaintiffs' case.

Sir Thomas Hughes, K.C., for the defendants, contended that having regard to the whole facts of the case the defendant's new premises would not appreciably affect the light coming to the plaintiffs' premises, and, further, that no nuisance had here been proved.

Mr. P. J. Waldram, daylight expert, said in his opinion the suggested addition to defendant's premises would not perceptibly reduce the access of light to the plaintiffs' bar, which had always been dark for some half of its length.

His lordship dismissed the action with costs. He said there was no doubt that the bar had always been a badly lighted room. It appeared to him that the plaintiffs' own witnesses had been entirely unable to prove that there would be a substantial deprivation of light from the defendant's proposed building. He was satisfied that the interference with the light coming through the window would be so slight as really not to be noticeable, and under those circumstances he dismissed the action with costs.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

23970. Gibbes, C. E. Device for securing roofing slates. August 11.

24275. Junkers, H. Uniting structural members. August 13.

24230. Roneo, Ltd., and Sellers, J. C. Sheet-metal partitioning walls for buildings. August 13.

SPECIFICATIONS PUBLISHED

333183. Ravier, S. L. Construction of retaining walls made of blocks and, in certain cases, of concrete, reinforced concrete, or masonry.

333320. Broughton, H. H. Dams, weirs, breakwaters, sea and river walls and like structures.

DOWNE GOLF CLUB

Following are the names of the general contractors, and some of the sub-contractors, for the Downe Golf Club House, Kent, illustrated on pages 331–2.

General contractors, F. and H. F. Higgs. Sub-contractors: London Brick Co. and Forders, Ltd., bricks; Williams, Smith and Evans, tiles; Ruberoid Co., Ltd., special roofings; Acme Flooring and Paving Co., wood-block flooring; Ernest G. Walters, patent flooring; Air Vent Heater Co., Ltd., central heating; Rownson, Drew and Clydesdale, Ltd., stoves and sanitary fittings; South Suburban Gas Co., gas-fitting; Dean and Davies, electric wiring; Carter and Aynsley, Ltd., door furniture.

RECENT WILLS

Mr. Charles James Tait, F.R.I.B.A., of Hampstead Way, Golders Green, N.W., left estate of the gross value of £17,193 (net personalty £15,041).

Mr. Joseph Sawyer, F.R.I.B.A., of The Tower, Kenley, Surrey, aged seventy-eight, left estate of the gross value of £129,325 (net personalty, £124,972).

Mr. Alister Macdonald, A.R.I.B.A., represented the Prime Minister at the funeral of Sir Aston Webb at St. Paul's Cathedral on Monday of last week.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle ..	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract ..	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* NAVVY, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

	£	s.	d.
Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

	£	s.	d.
Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1*s.* 9*d. each and credited when returned at* 1*s.* 6*d.*

Transport hire per day:

	£	s.	d.		£	s.	d.
Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

	£	s.	d.
RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* BRICKLAYER, 1*s.* 8½*d. per hour;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

	£	s.	d.
Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. 6 *in., per ft.*	0	1	3
DO. 9 *in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. 6 *in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½
STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0	4	3
DO. 6 in., per ft.	0	5	0
DO. 9 in., per ft.	0	7	9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

	£	s.	d.
London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9¼ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. 9 *in., per roll*	0	4	9
DO. 14 *in., per roll*	0	7	6
DO. 18 *in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1*s.* 8½*d. per hour;* DO. *fixer,* 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

	£	s.	d.
Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

	£	s.	d.
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour;* TILER, 1*s.* 8½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

	£	s.	d.
Slates, 1st quality, per 1,200:			
Portmadoc Ladies	£14	0	0
Countess	23	0	0
Duchess	32	10	0
Old Delabole	*Med. Grey*		*Med. Green*
24 in. × 12 in.	£42 11 3		£45 1 0
20 in. × 10 in.	31 4 3		33 0 6
16 in. × 10 in.	20 18 0		22 4 9
14 in. × 8 in.	12 1 0		12 16 3
Green Randoms, per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

	£	s.	d.
Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey			Med. Green		
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

	£	s.	d.
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour;* JOINER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

	£	s.	d.
Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

continued overleaf

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick and bedding per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, &c.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. 4 *in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. 3 *in., per yd.*	0	1	8
DO. 4 *in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. 4 *in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ¾ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. 4 *ft. sup.* ,,	0	2	3
DO. 6 *ft. sup.* ,,	0	2	6
DO. 20 *ft. sup.* ,,	0	3	1
DO. 45 *ft. sup.* ,,	0	3	3
DO. 65 *ft. sup.* ,,	0	3	5
DO. 100 *ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. ⅛ *in., per ft.*	0	0	6¾
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:

A WEEKLY SERIES



SOUTH ELEVATION,

BARCLAYS BANK, WELWYN GARDEN CITY.

DESIGNED BY LOUIS DE SOISSONS AND A. W. KENYON

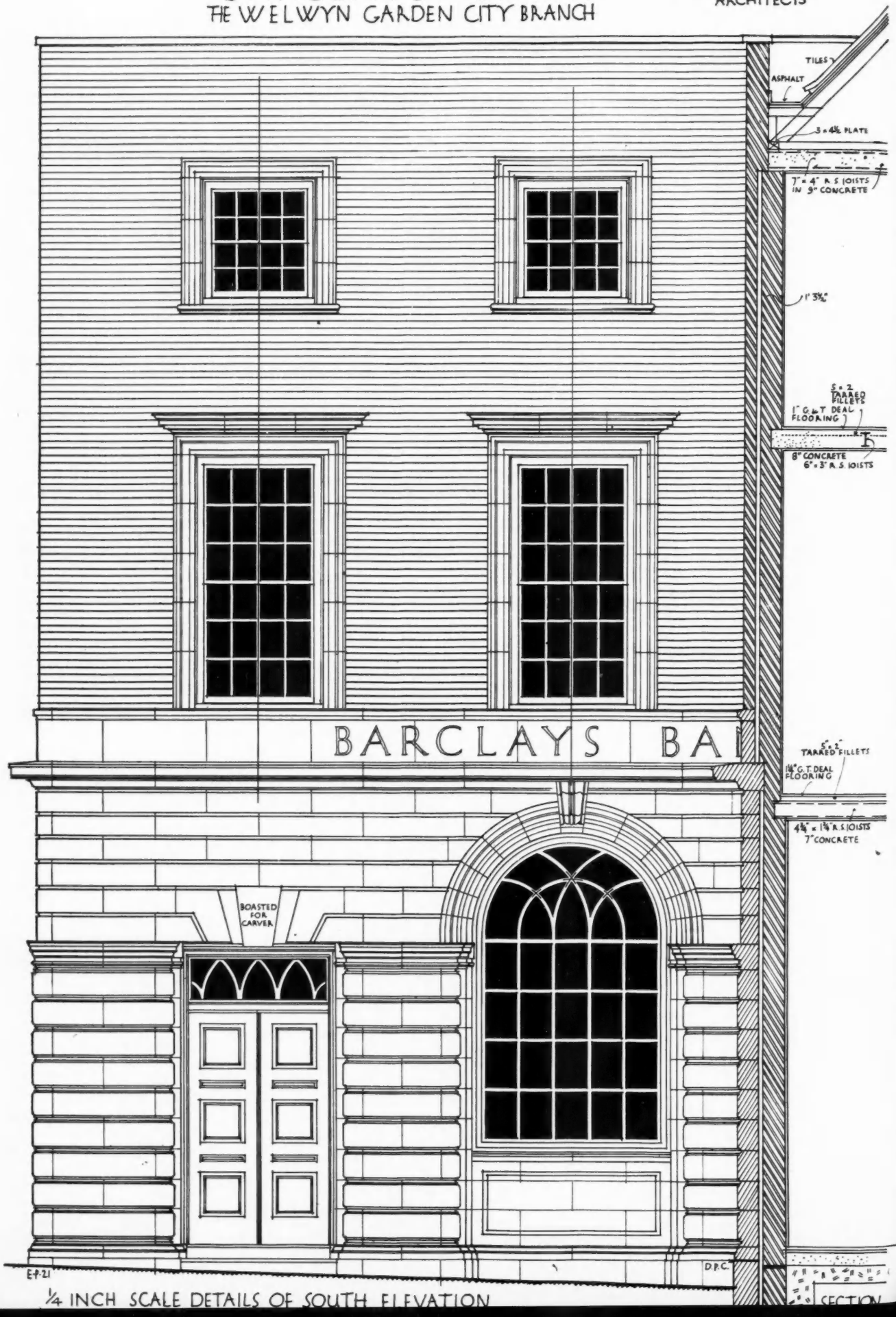
THIS façade is composed of two main divisions vertically. The upper portion is finished in local brown-red stock bricks, with dressings of Weldon stone to the window openings. The lower subdivision is faced entirely in Weldon stone. This lower portion is again subdivided into two unequal parts, the line of demarcation being a stringcourse at the line of the springing of the central arched window which lights the banking hall.

The doors on the left of the façade lead to the entrance lobby of the bank. The door on the right is the entrance to the manager's quarters, which occupy the first and second floors of the building. The windows are double-hung sashes. The pitched roof seen inside the parapet wall is covered with hand-made orange-red pantiles.

The drawing may be read with an architect's scale, ¼ in.=1 ft.

BARCLAYS BANK
THE WELWYN GARDEN CITY BRANCH

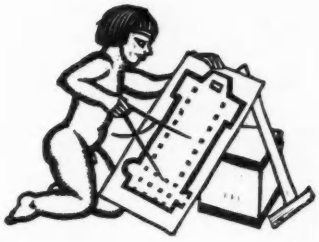
DE SOISSONS & KENYON
ARCHITECTS



¼ INCH SCALE DETAILS OF SOUTH ELEVATION

SECTION

THE ARCHITECTS' JOURNAL



WEDNESDAY, SEPTEMBER 10, 1930

PRIZE FIREPLACES

" The tradition of the English fireplace is still alive and, like any really popular thing, keeps branching out, and begetting new shapes, and crystallizing into fresh patterns."

IT is announced that one of the special features of the Building Trades Exhibition, to be opened next week at Olympia, will be a competition in the design and erection of brick fireplaces. The subject is of more than usual interest for several reasons.

The fireplace is, for one thing, a threatened feature of the English house; the housewife (probably the most important person in the national life) condemns it for its dust and its appetite for blacking, and the hygienist for its pollution of the air with smoke. In spite of this, the fireplace flaunts its popularity on the plans of every house and of ninety-nine per cent. of the flats; it has the life and vigour of a popular institution.

In truth, the English fireplace is part of the tradition of heartiness, cosiness and colour which budded in Chaucer and burst into such tropical efflorescence in Dickens, so that when the latter wanted a title for a domestic novel it must have leapt to his pen—*The Cricket on the Hearth.* The epic wanderings of Pickwick and his companions come to their halts before the roaring fires of road hostelries, and all wretchedness is described in the words " cold and wet."

We do not think this tradition will ever die whilst our people remain. Some journalist in Holy Orders, or self-eminent Judge, may announce the defacement of the national character once a week, but our architecture at any rate shows the vitality of a schoolboy as well as the ripeness of a scholar.

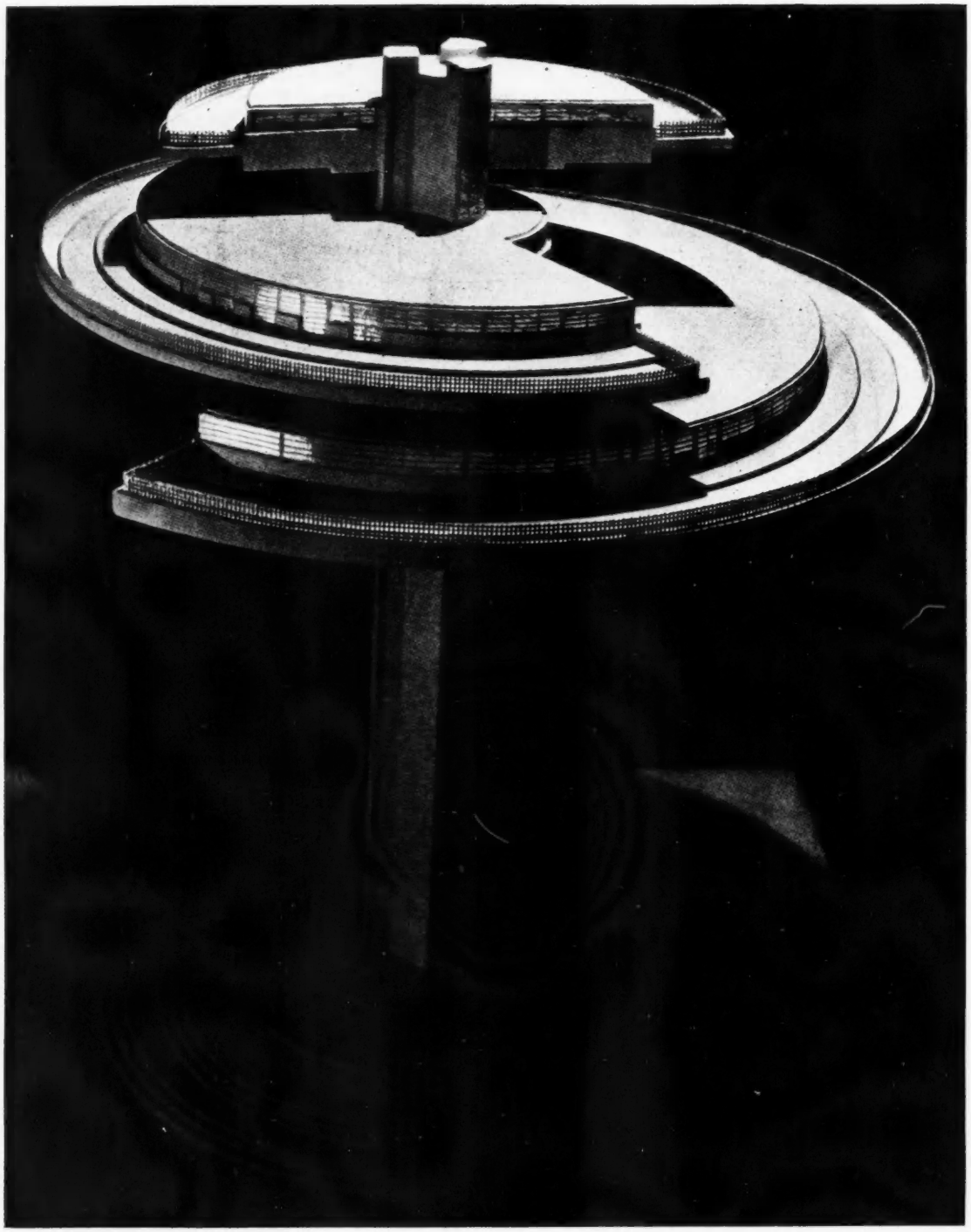
The tradition of the English fireplace is still alive and, like any really popular thing, keeps branching out, and begetting new shapes, and crystallizing into fresh patterns. It began as a hearthstone in the middle of the hall; it became an arched opening in the wall; it was surrounded with marble and wood; it was turned into a thing of black iron, and as such became the common grate and surround of Dickens's own time.

Since then it has developed in a way which would have pleased him mightily: it has come to be made entirely of brick.

Dickens would have understood the rightness of this material for the purpose. A red brick is the colour of flame, and suggests warmth on the chilliest day even before a match is struck, and when once the fire has triumphed over logs and coal the whole fireplace realizes a unity with its purpose. It has functionalism to burn.

We expect, therefore, a genuine enthusiasm in this competition for brick fireplaces, but we warn both those who are designing them and those who will be building them that they will be judged by three very competent architects, namely, Sir Banister Fletcher, Mr. Guy Dawber and Mr. Edward Maufe. These gentlemen will not only rule out the essays in bathos which crowd the walls of building merchants, and through which one has firmly to steer one's clients; but as assessors they will surely examine the designs from the point of view of the tired housewife and the active hygienist. Will the fire draw, or is it damned by too great a height between grate and arch? Will it be economical, radiate heat, and stay in all night? Will it allow the dust to float out into the room and down people's lungs when the grate is cleared? Can the fireplace be adapted easily to suit a gas or electric heater?

Out of such questionings there should emerge a new pattern for fireplaces and a new life for the tradition.



A REVOLVING RESTAURANT

A photograph of a model of the aerial restaurant proposed to be erected at the Chicago World's Fair. The architect is Norman Bel Geddes. Three floors on different levels revolve slowly around the elevator shaft and give the diner two complete panoramic views of the fair grounds during his meal.

The lower level seats 700 persons and has a dance floor. The intermediate level has seating accommodation for 400 and is devoted solely to light refreshments. The top level is designed as a restaurant of the highest order. It seats 200. Below the circular entrance terrace are the kitchens, beneath which is the machinery for revolving the structure. The height of the shaft is 278 ft. above the ground.

The tower is intended to be built of steel, glass and aluminium. The illustration is reproduced from Architecture *of New York.*

NEWS & TOPICS

A NEW AND HEALTHY CUSTOM

A FEW months will see the end of the triangular block that houses the Golden Cross Hotel and the Charing Cross Post Office—that rendezvous of long and cherished memory. Sir Herbert Baker is designing the elevations of the entire block, in accordance with a new and very healthy custom among landlords, so that there should be a good chance of preserving for Trafalgar Square the dignity to which these present buildings contribute, what though they parade their century-old stucco amid so much Portland stone. This rebuilding has nothing to do with the great Charing Cross scheme, but it may find itself the centre of a metropolitan improvement of the first magnitude, granted a happier fate for a new and better bridge.

A BANDSTAND IN TRAFALGAR SQUARE

There is some talk in the air of possible improvements to Trafalgar Square at the hands of Mr. Lansbury. Bandstands and flower-beds were mentioned, but the vision they conjure up does not seem to read either with Trafalgar Square or Mr. Lansbury at his best. Trafalgar Square is a dull piece of design, with a not too good column placed at the wrong point; and the National Gallery is too weak a composition to be the background for a layout of steps and fountains in a really fine manner. There is not very much hope, therefore, that Trafalgar Square can be bettered by sticking a bandstand in it, though flowers could be introduced in some appropriately formal way, so that our lives might be brightened without shocking our sense of fitness. The Landseer beasts might, of course, broadcast. That would be bright !

THE PASSING OF THE OLD BRUNSWICK

Talking of hotels and landmarks reminds me that another rendezvous, the old Brunswick Hotel, Blackwall, is in the hands of the breakers. It was one of those early-nineteenth-century buildings that seem to fit into and become the genius of whatever place they embellish. Whether it be a town square, a village street, a gentleman's park or a wharfside, their elegant lines and smooth stucco surfaces have brought new graces to each setting, to educate rusticity and vulgarity, without offence or condescension, to a belief in perfect manners.

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The great bay windows of the Brunswick Hotel looked over the busy Bugsby's and Blackwall Reaches where, in the early days of the hotel, East India merchantmen sailed past their owners out to sea. It was fashionable enough then to claim the Duke of York, who afterwards became William IV, among its devotees, and whitebait suppers, and good cooking of much else besides, evoked verses from poets. The 'sixties saw the end of it as a place where people of substance ate well before they left for foreign parts. For years it housed the passing emigrant before it fell upon its last period of indigence, and it goes now, years after its days have been numbered.

AMERICAN ARCHITECTS AND ADVERTISEMENTS

Under the caption (in appropriate block capitals), *Architects put weight in favor of clean roads*, an American paper goes on to describe a movement among American architects to remove advertisements from their countryside. It is as bad, or even worse there, than here, and it appears that no sort of law as yet exists to enable the community to deal with the nuisance. A case is pending in Massachusetts that is being eagerly watched by a very small minority of the public, and there is no doubt that this small minority will make a mighty noise until something be done there, as it has been done here.

★

Sporadic attempts are being made continually to clean up some particular district, and one hears of isolated efforts to set face against the invasion of common rights by the motoring public, such as for instance the village where motors are entirely prohibited on Sundays. That I took immediately to be a case of moneyed privilege, but my informant denied that the village was of anything more than the average composition, with a good dash of intelligence.

THE CONTROL OF ELEVATIONS

The Secretary of the Institution of Municipal and County Engineers, in a circular addressed to all members of that body, pours such a volume of cold water over the whole spirit and machinery of the Minister of Health's model clause for the control of elevations that I should be hardly surprised to find that this clause, an adaptation of the famous " Bath Clause," will come in for a deal of discussion in the near future. The chief objections raised on this occasion are—well, they are so wholesale as to leave little in agreement. The idea of a Tribunal denies the right of veto and the chance of negotiation to the council ; it sets up an architect as a judge of his fellows ; its decisions could not be correlated or uniform as those of the Ministry might be ; it would insist upon higher standards than are usually possible ; and it would, finally, take from the local authority the power and right of judging for itself. It is suggested that a clause giving councils power to order alterations to bring buildings in conformity with the council's ideas of fitness and decency is all that is required.

★

I do not propose to enter into any controversial points here. I see weaknesses in the " Bath Clause," in the composition of the tribunal, and in its comparatively sinecure position. On the other hand, I think that many councils cannot act as judges themselves, and have not ideas of what is fitting and decent, still less of what is really good. Therefore, I should think that it behoves the R.I.B.A. to look once again into the provisions of the model clause, and to do its utmost to keep some control over this matter, for the restiveness of the surveyors is a sign that the clause is not to their liking, and this their first step towards ridding themselves of it will weaken a not too strong position.

THE ART OF THE CAMERA

I looked in last week at the coming-of-age exhibition of the London Salon of Photography, which is being held at the galleries of the Royal Society of Painters in Water-colours. The salon has always stood for the advancement of pictorial photography, and has encouraged originality and progress in the art of the camera. In this respect it has achieved a great prestige in all parts of the world. This year, in addition to a notable display from the leading amateur and professional photographers in this country, contributions include works by exhibitors from seventeen other countries. Pictures by practically every known process in photography are shown, and the subjects, which number well over 400, are as varied as the processes; but

in every case the individual pictorial outlook of the artist is the dominant note, even in the case of the architectural work of which there is a fair sprinkling. The result is an exhibition of pictures which will surprise those who have not followed closely the progress of modern photography and who do not realize its position today amongst the arts.

WAS THE HIDDEN HAND SMARTERLY'S ?

The advertisement to which I drew attention last week has had a sequel that may well cloak a development of the kind so glibly termed "dramatic." On Friday last the following appeared in the same columns :

> **£1,000** HOUSE.—To Architect-Builders and Builders.—Lady building wants TENDERS and ROUGH SKETCHES: roomy house, room 30ft. Will those who wrote communicate? Letters lost.—Write Box 14, W. H. Smith, Kensington, W.8.

Should we, for the word "lost" read "purloined"? And was the hidden hand that removed those letters in reality that of Smarterly? Could he, I ask myself, have become so apprehensive of danger from THE ARCHITECTS' JOURNAL that, on reading my note, he went to the length of removing the evidence against himself? For, of course, we may take it for granted his proposals were among the answers received. I dare wager his name will not be found among the fresh applicants; but he may yet pull off the job, under a pseudonym. ASTRAGAL

More Official Architecture

AT a meeting of the Northampton Town Council, last week, the question of increasing the salary of Mr. Cobb, the architectural assistant, from £500 per annum to £600 per annum, in view of a large amount of proposed extra work, as recommended by the Education Committee, gave rise to keen discussion.

The recommendation was moved by Alderman Sykes (Conservative), who referred to Mr. Cobb's increased responsibilities in connection with the Technical School, School of Arts, and two elementary schools. The Education Committee recommended the Council's acceptance of the application.

Alderman Chown (Liberal), seconding, said there was a great responsibility attached to the work.

Mr. Bugby opposed the application, taking into consideration the state of trade and the affairs of the town. The plea put forward by Mr. Chown was absurd. Signalmen and railway drivers also had a big responsibility, and Mr. Cobb had no more duties going on his shoulders than they. Northampton, declared Mr. Bugby, was paying as much as they could possibly afford.

Mr. W. Smith said Mr. Cobb had been treated very generously. He was appointed in May, 1924, at the salary of £350. In July it rose to £400, and in September, 1927, to £450. In 1929 his salary was increased to £500, and his position made permanent.

Mr. T. D. Lewis (Liberal) said the work in contemplation would cost more than £2,000,000, and if an architect had been employed the usual inevitable commission would have been a considerable amount. In his opinion the right line to have been taken would have been to have thrown open such a big work to public competition.

Mr. Lewis moved the reference back of the Education Committee report for further consideration, and Mr. J. G. Dalton, who seconded, said that with the assistance Mr. Cobb now had, he would not be working any harder than when he was appointed. He would, of course, have greater responsibility, but for that he had been already given a larger salary.

Alderman G. W. Beattie said he had not previously opposed a recommendation of a responsible committee for an increase of salary of an official. But in this case he thought the proposal was unjustifiable. He had never known an instance in which an official had received such consideration as Mr. Cobb had during the past six years.

Alderman Harvey Reeves (the Chairman of the Salaries and Appointments Committee, which recommended that the Education Committee's proposal be not approved) said he felt bound to say that the Committee considered the matter with every sympathy. While thoroughly appreciating the excellent services of Mr. Cobb, they felt that the increase proposed by the Education Committee was not justifiable at the present time, and no member voted in favour of it. In six years Mr. Cobb's salary had been raised from £350 to £500. His appointment had been made permanent, and he came under the superannuation scheme.

Mr. W. Barratt (Socialist) said that the salaries of the seven assistants of Mr. Cobb amounted to a sum of £1,500, and with his salary they were paying £2,000 for architectural assistance in connection with the Education Department. They could get most efficient work done by outside architects for £2,000 a year.

Upon being put to the vote, the amendment to refer back was carried by 25 votes to 4.

[The above is condensed from the report appearing in *The Northampton Daily Chronicle.*]

An important relaxation in London building regulations has been made by the Ministry of Health by the confirmation of bylaws submitted by the L.C.C. in respect of sanitary installations. In future it will not be necessary for bathrooms and water-closets to have outside windows, and so it will be easier to provide for a great many more in the planning of hotels. This amendment is one of those to secure which a joint committee was set up by the R.I.B.A., the British Steelwork Association, the London Master Builders' Association, the National Federation of Building Trades Operatives, and the Hotels and Restaurants Association. The point was also emphasized by Mr. Maurice Webb, when the Minister of Health received a deputation from the steel group in the House of Commons to hear the views of the industry upon the urgent necessity for modernizing building bylaws and so increasing the possibilities of employment. A leading article on the subject appeared in THE ARCHITECTS' JOURNAL *for June 11 last.*

A conference on steel structures research, the purpose of which is to promote discussion of the work and objects of the Steel Structures Research Committee of the Department of Scientific and Industrial Research, will be held at the Institution of Civil Engineers, on October 16 next. This Committee has been set up to review existing regulations for the use of structural steel in buildings and bridges, and to investigate the possibilities of more efficient and economical design.

THE R.M.S.P. CO.'S HEADQUARTERS

Leadenhall Street, E.C.

DESIGNED BY SIR EDWIN COOPER

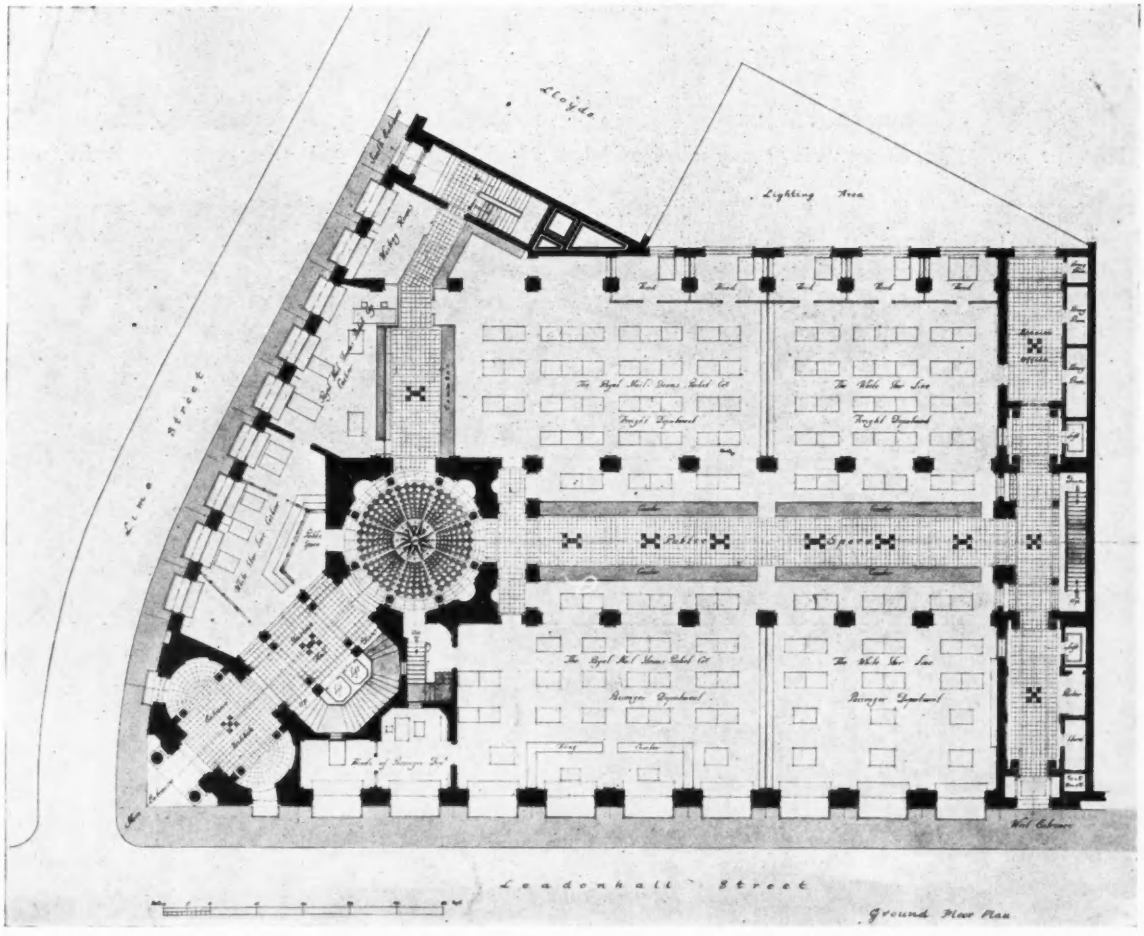
LLOYDS and Royal Mail House are interlinked. It is due to no accident that they adjoin and that Sir Edwin Cooper designed both buildings: the two owners combined to acquire the land, with the object of reducing some of the difficulties always presented by building in narrow City thoroughfares such as Lime Street. Even with this aid it has been a case of setting back the uppermost of the eight stories of Royal Mail House, to the extent of three on the Leadenhall Street front and five on the return.

The irregularity of the site was met by the laying down of three axes, intersecting in a rotunda, two at right angles, and the other bisecting the tapering corner of the site, and by placing the main entrance here. The interior rectangularity craved by the Renaissance style was thereby obtained, and the plans show with how great an effect the idea has been developed.

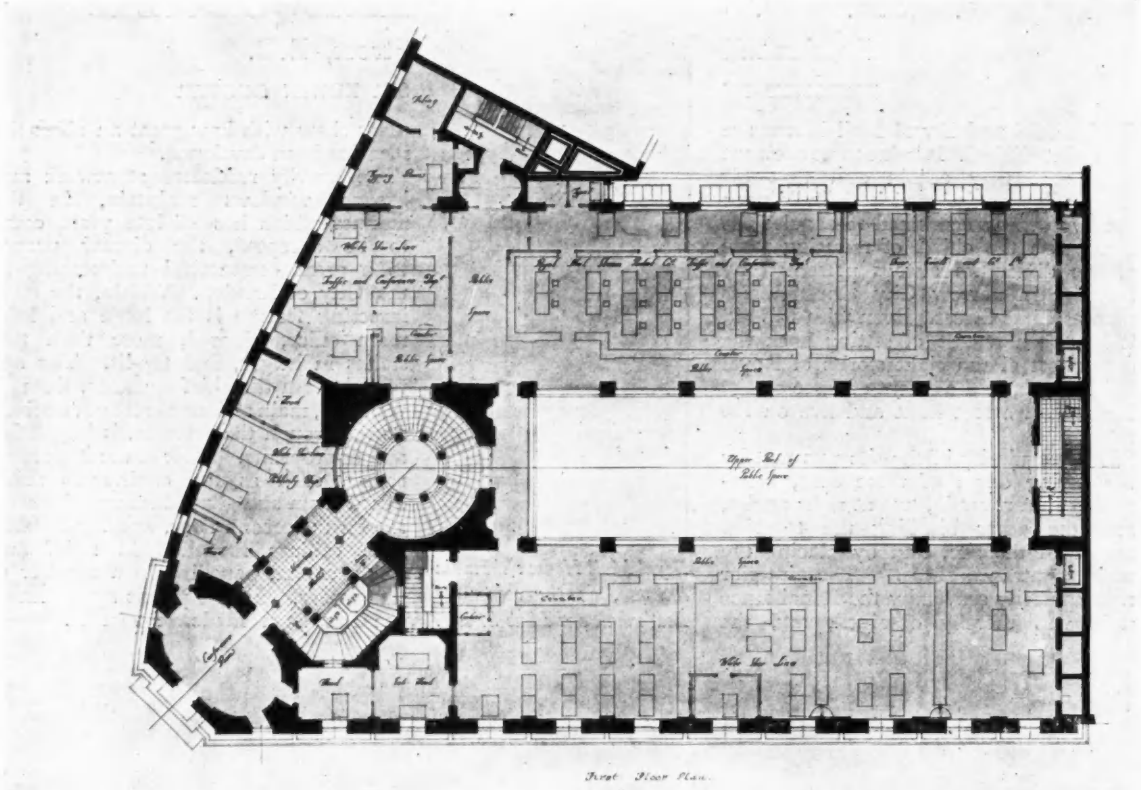


Royal Mail House: the main entrance, on the corner of Leadenhall and Lime Streets.

The heavily rusticated stonework and bronze windows maintain, in the manner which has of late years come to be accepted, the dignity proper to a great commercial undertaking in the City of London. Within, the most imposing feature is the large and lofty main office, pillared, more than two stories in height, and top-lit. The approach from the chief entrance, through vestibule, main staircase hall and, up from steps, through the rotunda, is impressive and appropriate. Most of the important rooms, such as the chairman's suite, board room and general manager's room, are on the second floor, and are finished with ceilings modelled in relief and richly carved panelling in a number of fine woods. In the public spaces much use has been made of marble.



The ground-floor plan. The site, which adjoins Lloyds, also designed by Sir Edwin Cooper, has frontages of some 200 ft. to the south side of Leadenhall Street and of 150 ft., on a slightly curved concave line, to Lime Street, the minimum depth being 120 ft.

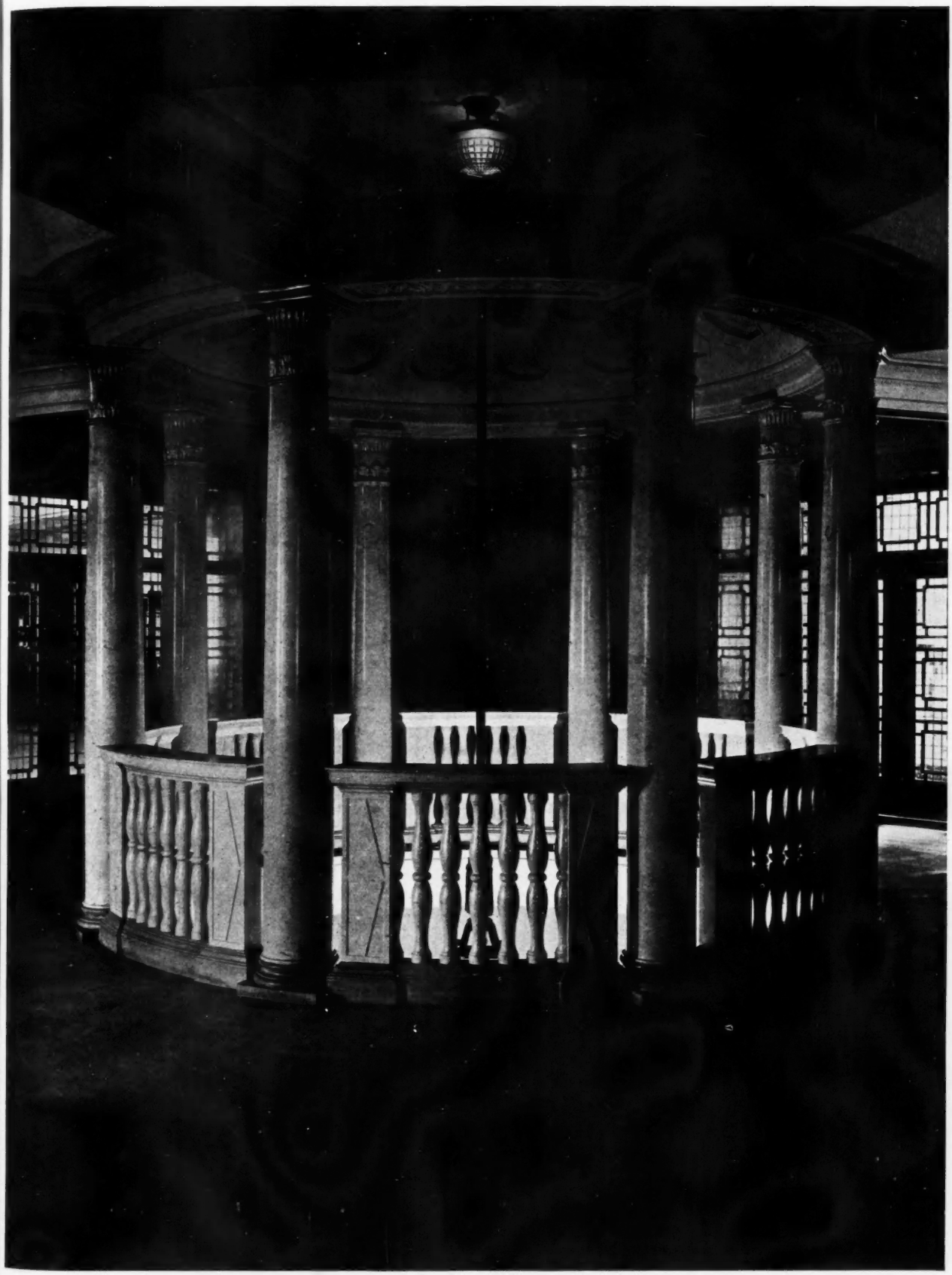


First-floor plan. There are ten stories, two of which are below ground level, and a mezzanine floor over part of the basement.



Royal Mail House, Leadenhall Street, E.C.]

In the main office on the ground floor, looking towards Lime Street. It is more than two floors high.

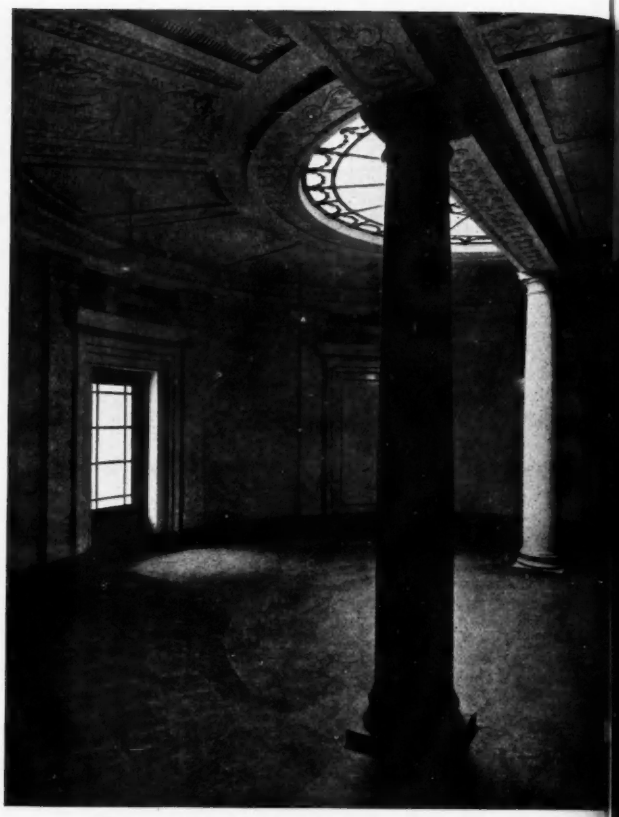


[*By Sir Edwin Cooper.*

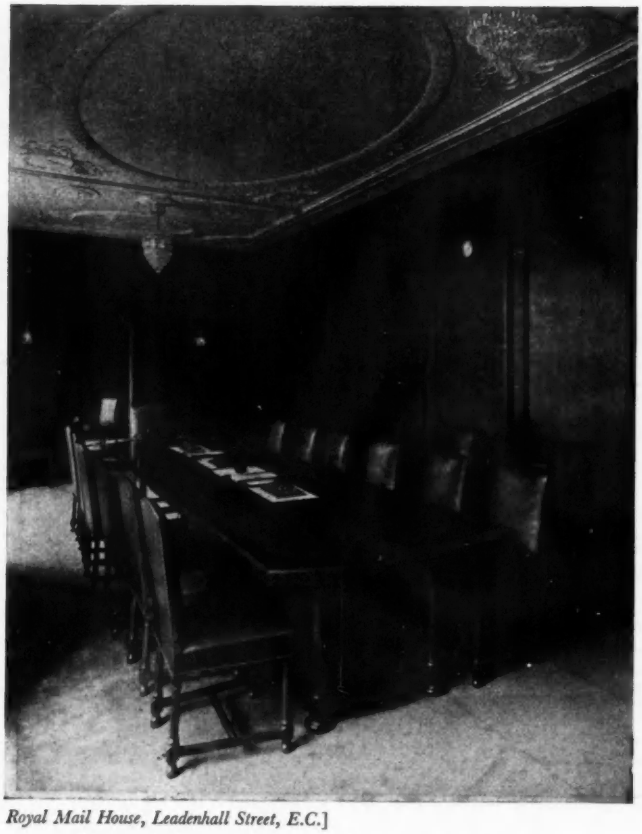
The rotunda has, at first-floor level, a central well surrounded by a marble balustrade and eight marble columns of Corinthian character.



The staircase on the second floor, looking west.

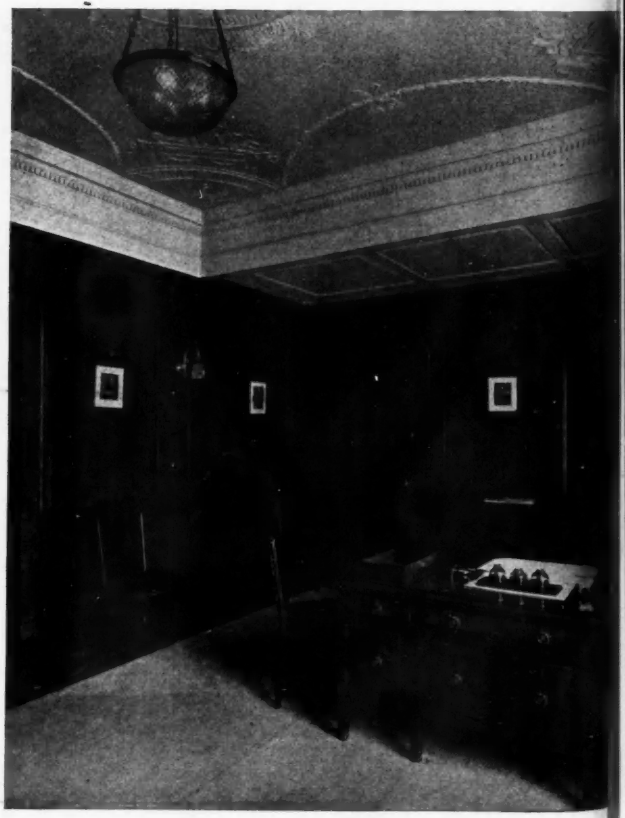


The ante-room to the chairman's second-floor suite.



Royal Mail House, Leadenhall Street, E.C.]

The second-floor conference room has panels of Austrian oak.



The general manager's room is panelled in sycamore.



[*By Sir Edwin Cooper.*

The chairman's room, on the second floor, is elliptical in shape. The panelling and furniture are in walnut, and the carving is in lime wood.

C

MODERN SCULPTURE

THE art of sculpture, writes Mr. Stanley Casson in the current issue of *The Architectural Review*, is at its turning point. Ten years hence, we shall know where we stand. Such is the moral he draws after perusal of Mr. W. Aumonier's *Modern Architectural Sculpture*, recently published by The Architectural Press.

The modern sculptor in every country, he affirms, is aware of the failure of the merely realistic school. All alike alter and adapt human or animal figures. For they realize (what the realists had forgotten) that the first artist who created a non-existent form —whether centaur, gryphon, cherub, or mermaid—was altering Nature in the most drastic way imaginable to suit the conveniences of art.

The community of character perceptible in modern sculpture is a community not so much of style as of outlook. The apparent similarity between the work of Scandinavian, Yugoslav and British sculptors which is superficially apparent to an untrained eye lies simply and solely in the willingness of the artists in each case to abandon any attempt to copy Nature with exactitude. Where Rodin and Barye copied, as they thought, faithfully, and showed their originality rather in composition and execution than in conception, the modern sculptor will think first of the forms he wants and that suit his material, and of fidelity to his models afterwards; and in this process certain national characteristics do most curiously emerge. From a glance at the work of the Germans it is evident that German Gothic traditions still work strongly in German minds, and the same is true of the Dutch, whose fertility of invention in sculpture is not great. But the German work throughout seems to have a severely practical application : it is essentially architectural and functional. German sculpture in brick and iron harmonizes admirably with modern German architecture.

The same Gothic prejudices are evident in Czechoslovak sculpture.

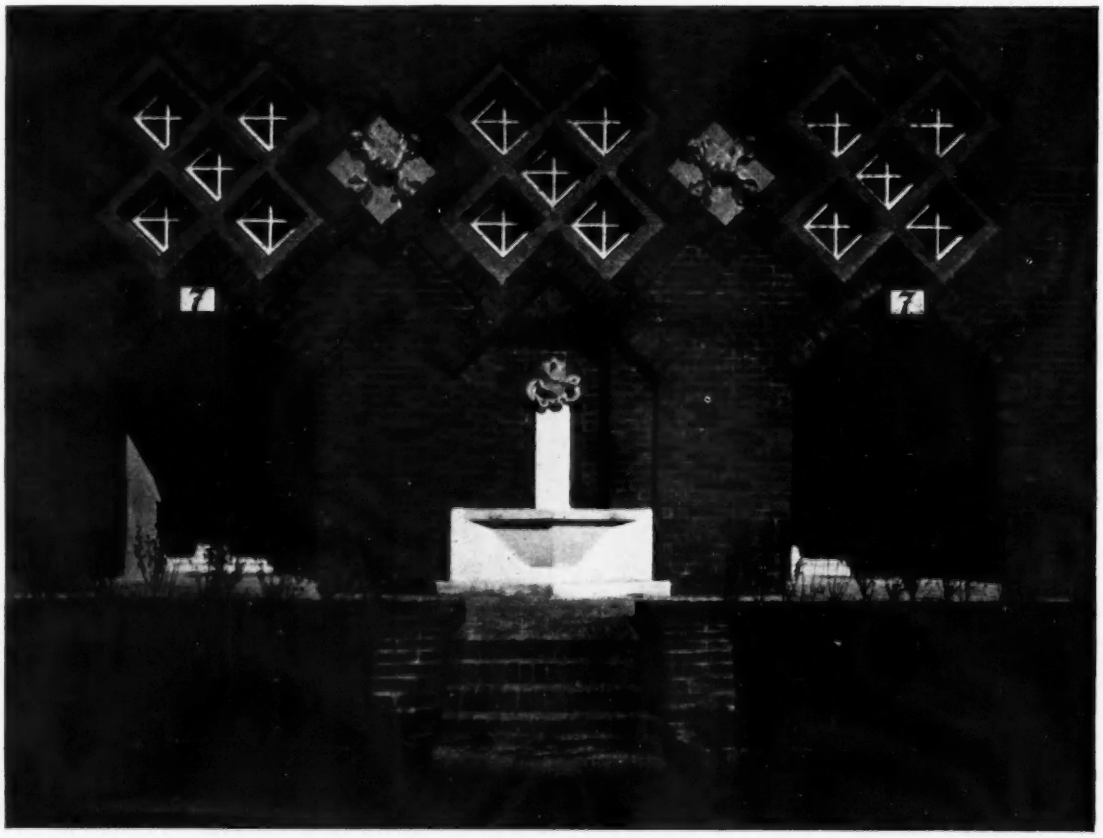
In Jugoslavia, on the other hand, the underlying influences are Byzantine, certainly not Gothic, with an admixture of the peculiar forms and shapes common to the art of Dalmatia.

Italy, France and the other Latin countries seem almost completely sterile in work which can in any way compare with the modern movements in Scandinavia, Germany and England. The reason may be that the Latin races are notoriously conservative and traditional in the worst sense.

France still has the memory of Bourdelle, and the work of Maillol and Bernard, but of these three only Bernard can be said to be a truly modern sculptor.

Austria, alone among European countries seems to have achieved the perfect unity of sculpture with architecture. Where Epstein will plaster his gaunt figures on to the outside of a building, Austrian sculptors, with their natural grace and delicacy, will make their sculptures an integral part of the buildings they adorn.

Of Sweden it is hardly necessary to speak. Carl Milles dominates Swedish art and, for the matter of that, European art, like a Colossus. He is the most important living sculptor and the greatest influence on the future.

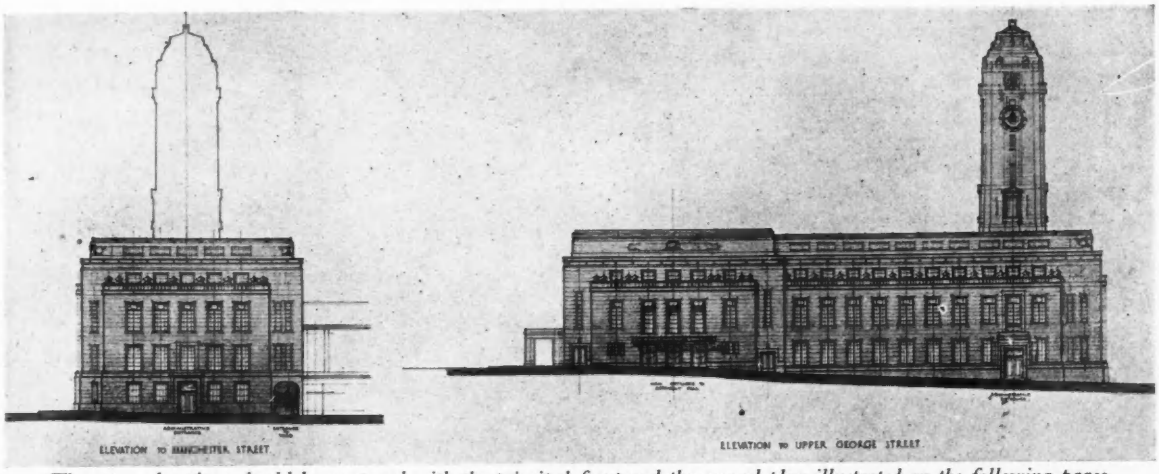


[*From* The Architectural Review.

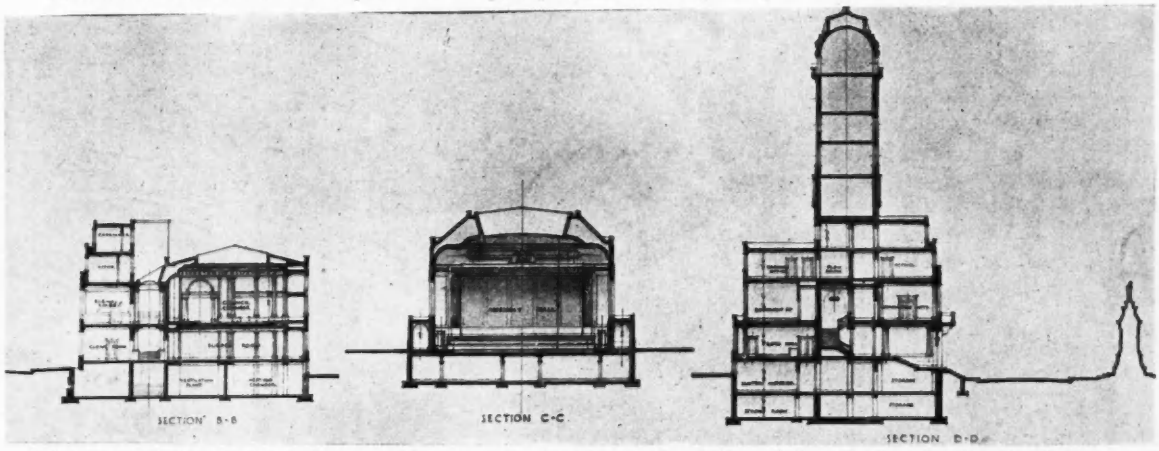
Workmen's Dwellings, Vienna. Cesar Poppovits, architect. Professor Robert Obsieger, sculptor. The fountain and reliefs are carried out in blue and green ceramics.

LUTON TOWN HALL COMPETITION

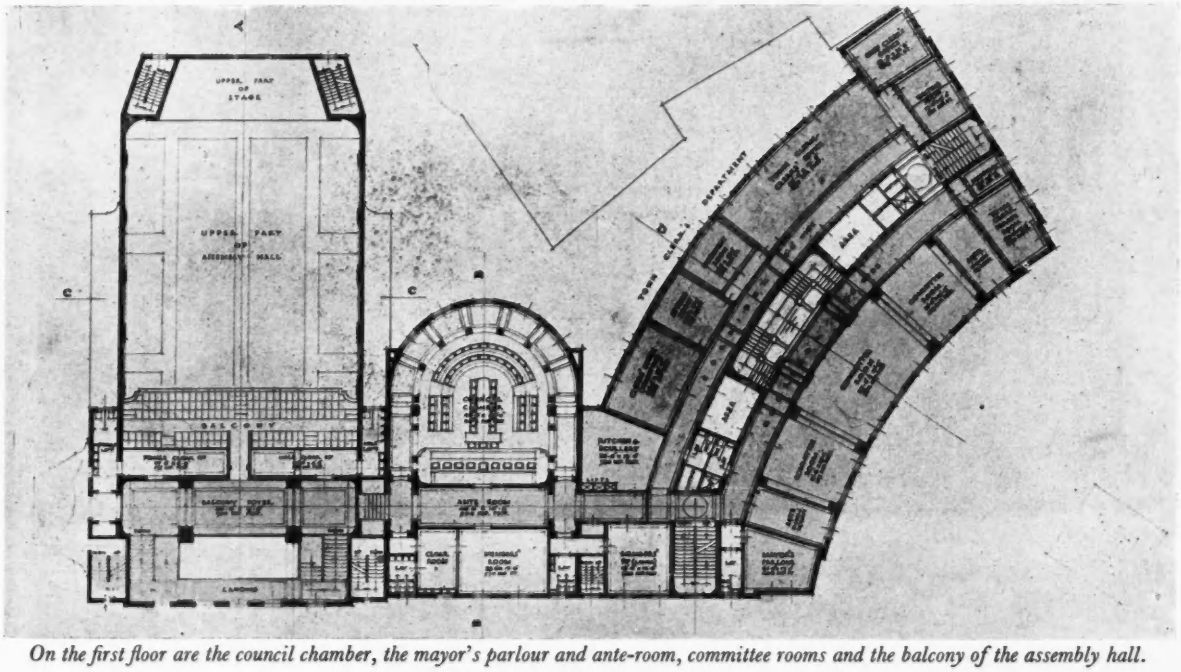
THE WINNING DESIGN: BY BRADSHAW GASS AND HOPE



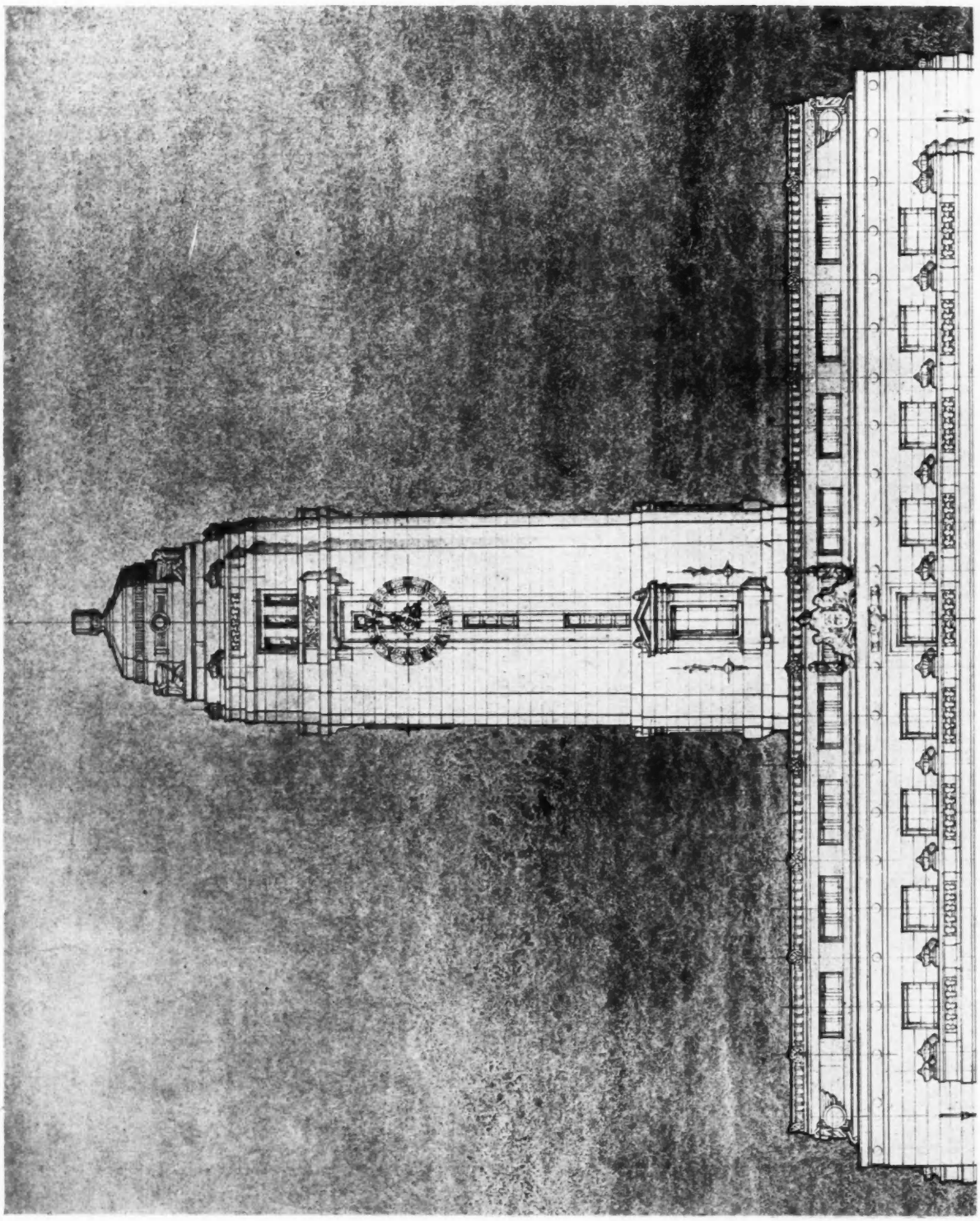
These two elevations should be compared with the principal front and the ground plan illustrated on the following pages.

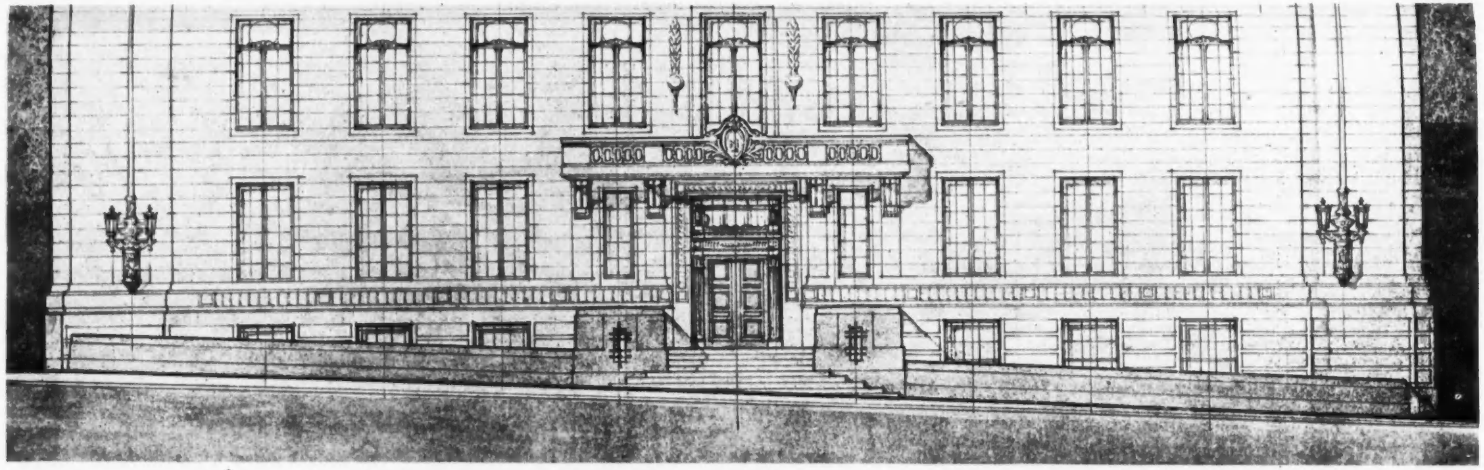


Sections through the council chamber and supper room; through assembly hall, and through the administrative department.

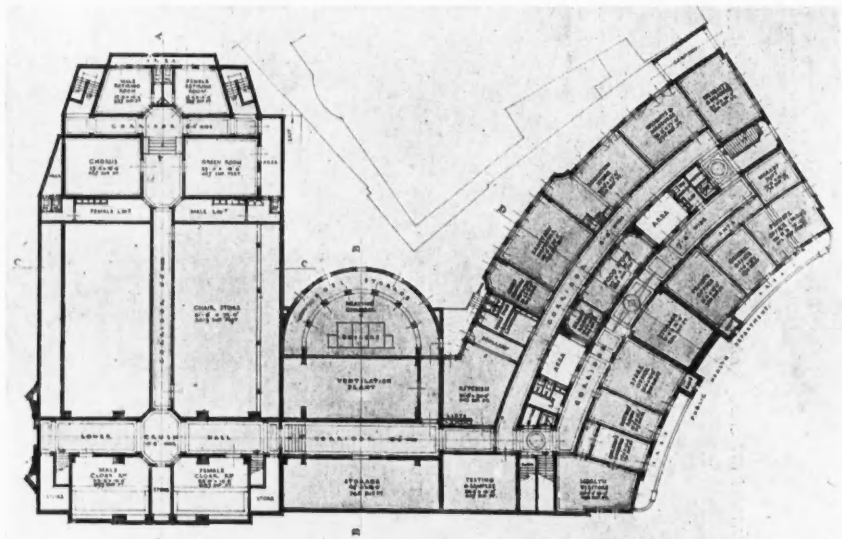


On the first floor are the council chamber, the mayor's parlour and ante-room, committee rooms and the balcony of the assembly hall.

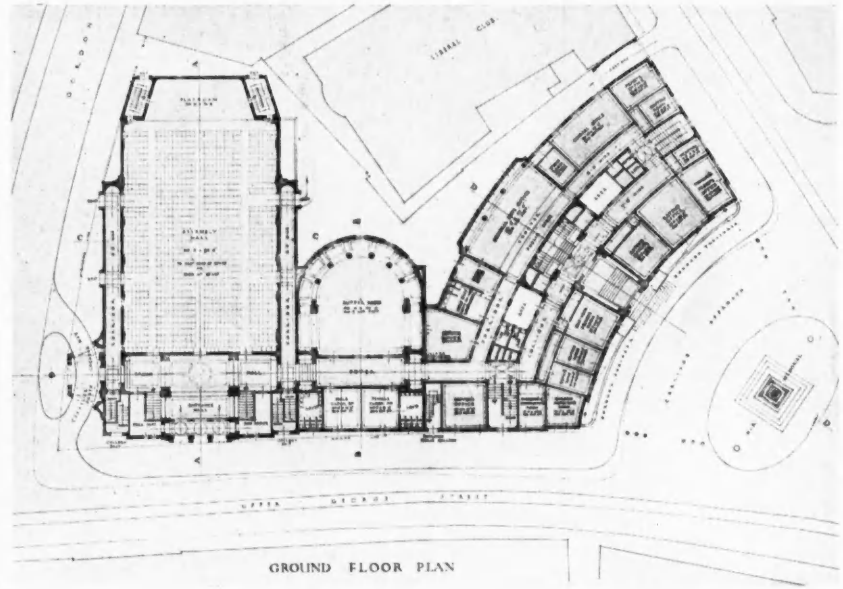




The principal elevation, that of the administrative department, is at the corner of Upper George Street and Manchester Street (see ground-floor plan below). It faces a carriage drive, in front of which is the war memorial.



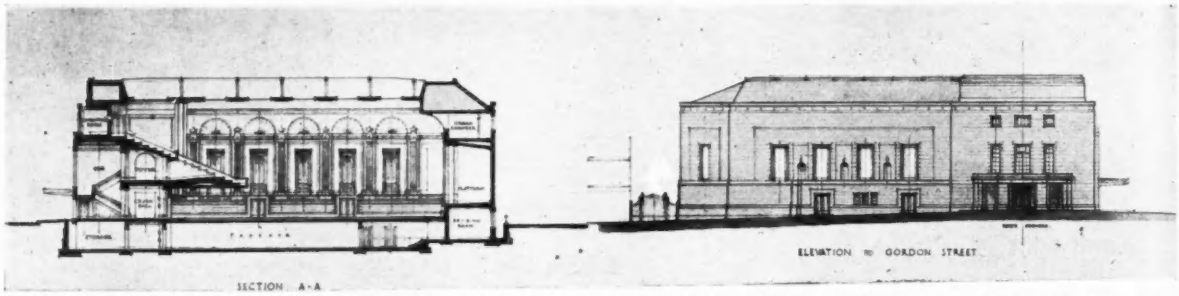
LOWER GROUND FLOOR PLAN



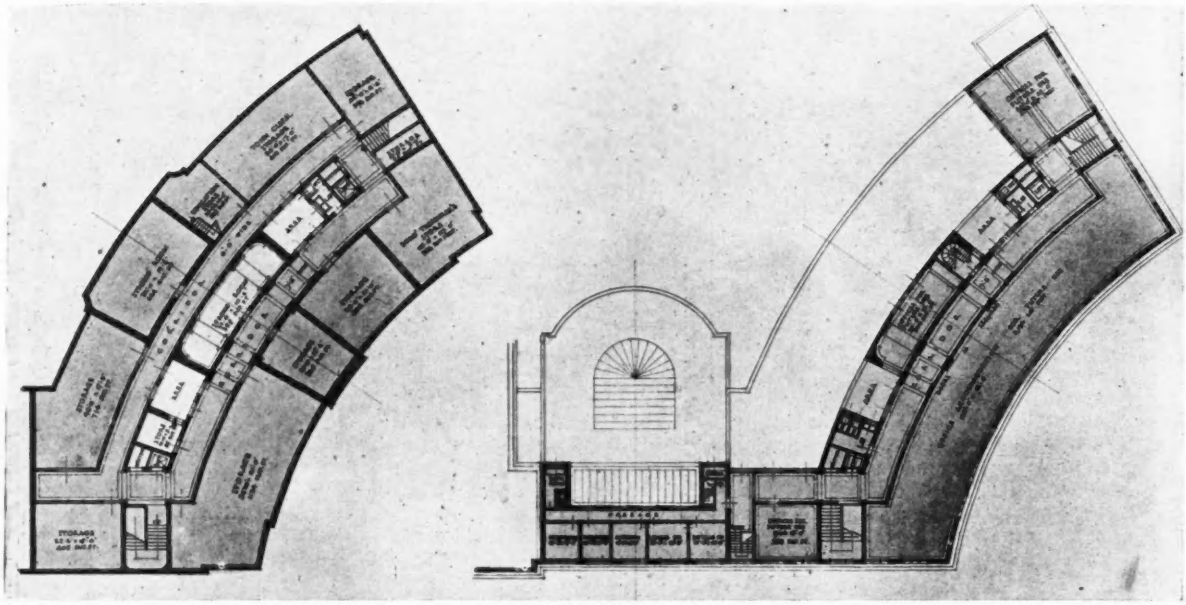
GROUND FLOOR PLAN

Luton Town Hall Competition: First Premiated Design.] *[By Bradshaw Gass and Hope.*

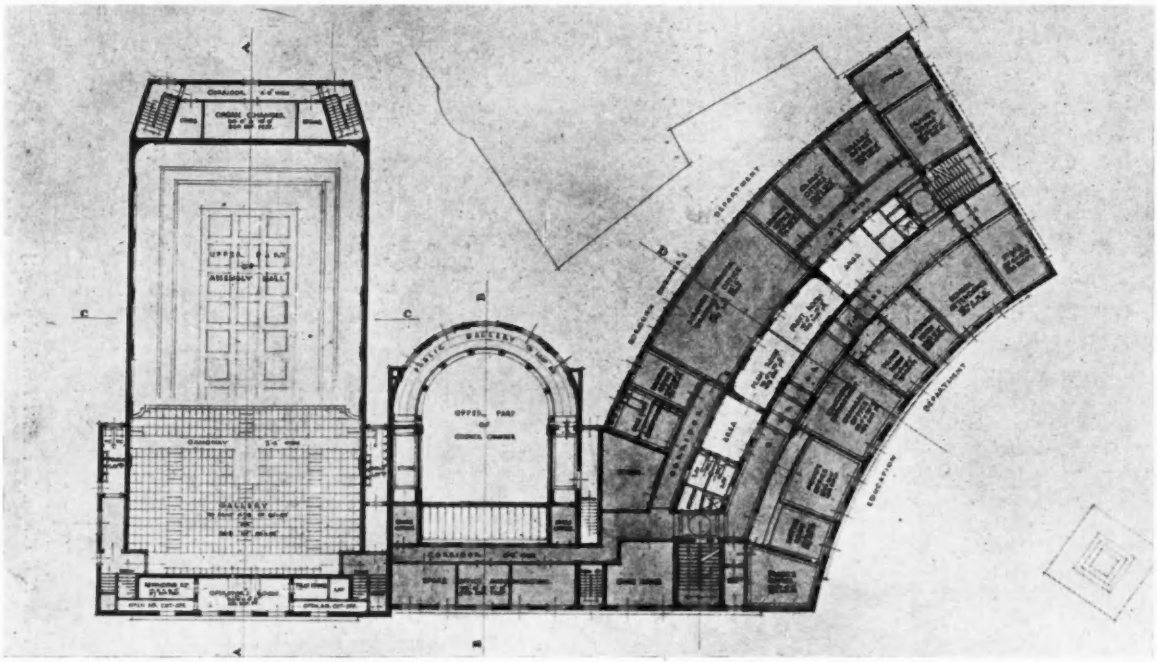
Lower ground and ground-floor plans. Eighty-six competitors took part in the competition. The awards of the assessor, Sir A. Brumwell Thomas, were as follows: First, £500, Bradshaw Gass and Hope, Bolton; second, £300, Lanchester and Lodge, London; third, £200, H. J. Harding, London; fourth, £100, J. Coulson Nicol, Birmingham.



Longitudinal section through the assembly hall, and the elevation to Gordon Street. The assembly hall extends through three floors.



In the basement are storage and strong rooms, and on the third floor are the caretaker's flat and future office accommodation.

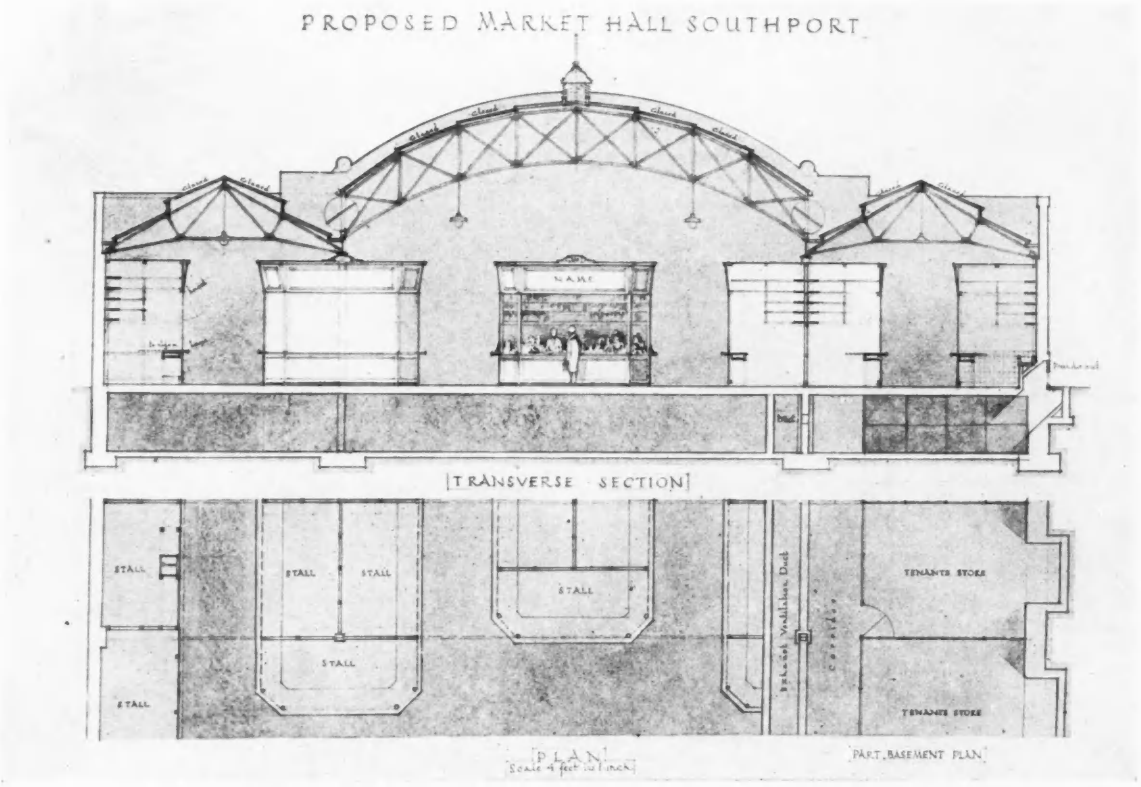


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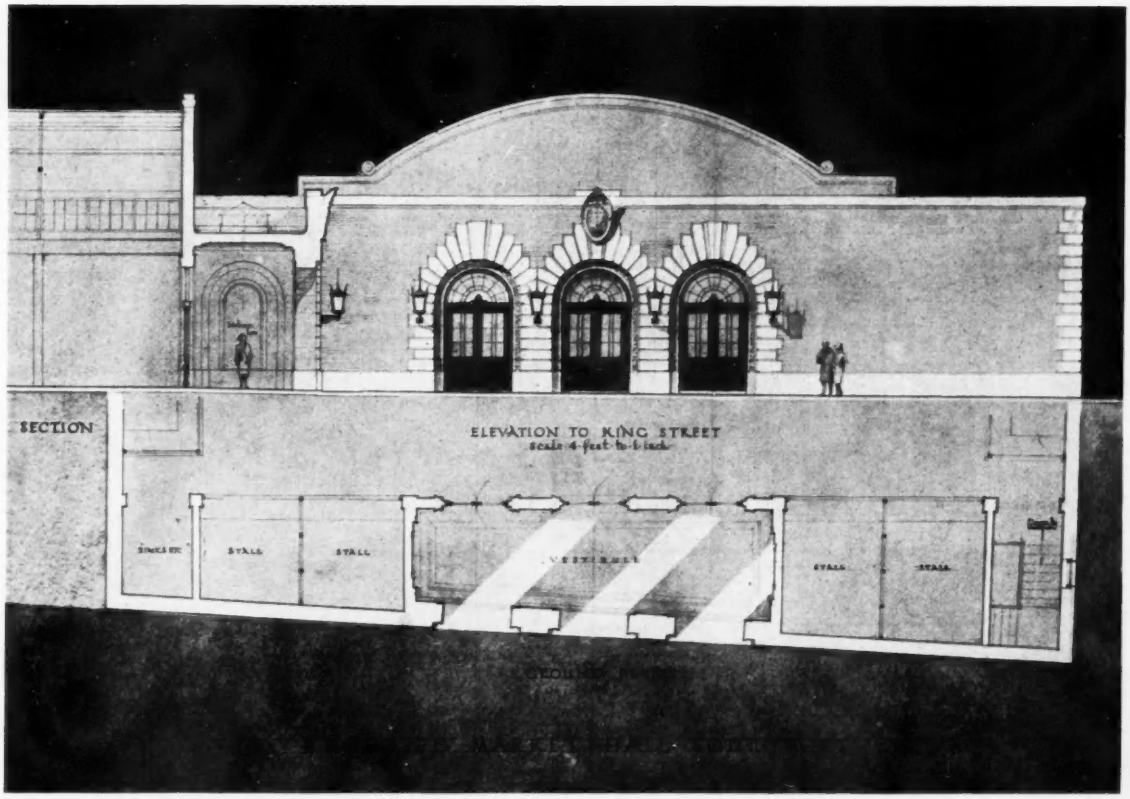
On the second floor is the gallery of the assembly hall and the upper part of the council chamber.

SOUTHPORT MARKET HALL COMPETITION

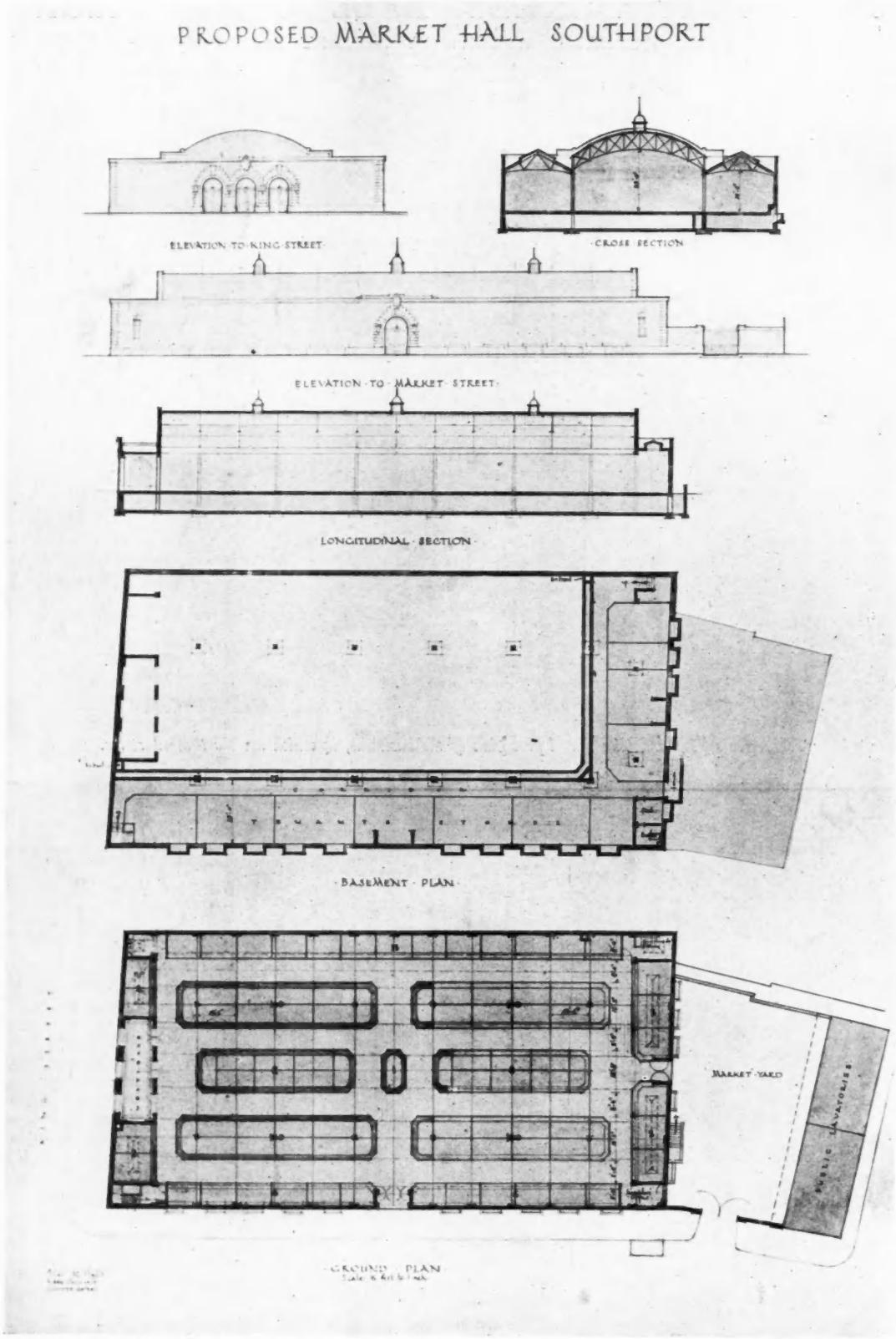
FIRST PREMIATED DESIGN: BY HERBERT LANGMAN



Transverse section and plan; and part plan of the basement, in which are the tenants' stores.



The principal entrance is from King Street. Two subsidiary entrances are provided from Market Street; see plans, page 378.



Southport Market Hall Competition: First Premiated Design.] *[By Herbert Langman.*

Plans, elevations and sections. The competition was assessed by Mr. Percy Worthington, whose other awards were as follows: Second, £50, Q. Mangnall Bluhm; third, £35, George E. Tonge; fourth, £20, Packer and Crampton. The first premium was £100. The competition was limited to local architects.



ENGLISH PRECEDENT No. 132

GATE,
WRENCOTE,
CROYDON, SURREY

The man who sets out today to produce ironwork similar to this gate is committing a sin against the gods. It could not be copied for a given sum of money and to a contract date in any but a harmless, lifeless, nearly worthless manner.

Though the study of how such work came to be made is the very core of architectural education, tradition falls into a bog with too much copying. It is better to look long—then go away and do something different.

[E. MAXWELL FRY]

LETTERS FROM READERS

Guildford Cathedral Competition

SIR,—With reference to the letters which appeared in THE ARCHITECTS' JOURNAL for August 13 and 27, it would seem that your correspondents have mistaken the object of the preliminary invitation.

This is intended to serve a dual purpose: (*a*) To enable the committee to select a limited number of architects for a competition, and (*b*) to avoid putting those submitting work to the trouble and expense of preparing special drawings.

As the committee wish the invitation to be as wide as possible, a design for a cathedral (or for that matter, any church) was included, so that younger men, not having had the opportunity of carrying out ecclesiastical work, might show their ability and be invited to compete.

Since no conditions were laid down for such a design, or even a site given, it would seem clear that the intention is that such a design as is submitted would serve merely as an indication of the ability of the author to compete in the competition.

LIONEL E. BLACKBURNE
(ARCHDEACON OF SURREY)

SIR,—I am sorry to see your correspondents falling foul of the Guildford Cathedral competition conditions in what seems surely immoderate language when the conditions themselves are, on the face of it, a model of sweet reasonableness. They are so very calm, straightforward, and plausible that they should surely conciliate everybody. The competition is obviously a limited one and, as such, differs hardly at all from a thousand other competitions of the same kind.

There are many things to be said for limited competitions; and whoever has in this instance advised the promoters that the competition should be a limited and not an open one, cannot lightly be accused of having advised them wrongly. We may not all equally like the idea of the limited competition, sir, but there have been scores of them in the past, and only a few months ago you published the winning design in a perfectly successful one organized by Messrs. Daniel Neal and Sons. I cannot recall that any such fuss was made about that or of any of its recent predecessors.

The mistake made by your correspondents arises, I believe, from the fact that they have somehow been misled into looking upon the first, selective stage of the Guildford competition as an open competition, as that term is usually understood by architects in this country. What has caused them so to regard it, one cannot, of course, very well tell. It may be the mellifluous language used in the Archdeacon's advertisement; it may be the waggish reference to persons whose taste has "led them to study buildings of ecclesiastical character"—a reference obviously not meant to apply to architects at all; it may be the mere fact of the competition being advertised in the Press. It is not, of course, the common practice to advertise limited competitions, and I have heard it said that the public advertising of the present one is tantamount to its masquerading as a public competition. But the merest glance is sufficient to show that it has nothing in common with the public or open type of competition as understood by the R.I.B.A. To judge it by the standards of the public competition, as most of your correspondents seem to have done, is therefore not only patently absurd, but quite unfair to Mr. Tapper and the committee.

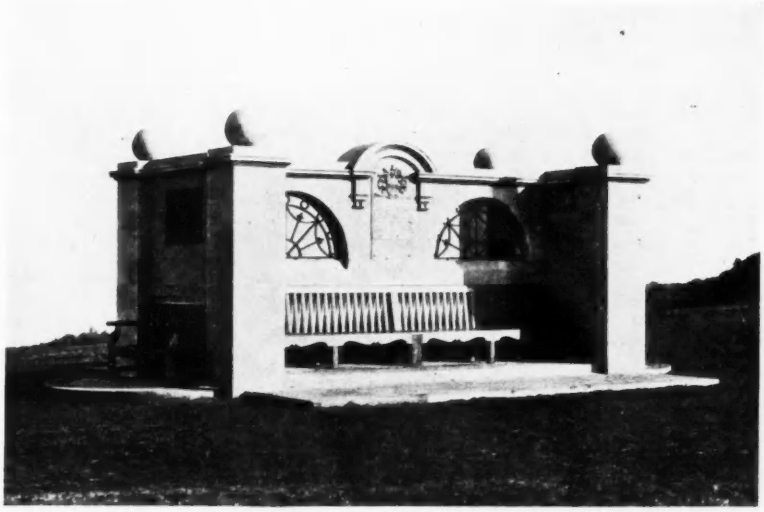
I must say that I myself find it difficult to understand why the competition has been publicly advertised, but that is a matter for the Cathedral Committee, and one which need hardly worry us. Some of your readers may remember a travelling scholarship founded by the late Society of Architects some years ago, as a result of a generous gift from Mr. L. Sylvester Sullivan. Entries for that scholarship were invited in exactly the same manner as the entries for the Guildford competition. Portfolios of drawings were sent in accompanied by personal particulars, and the jury chose the man who in their estimation was the best and worthiest. There, indeed, was a case which clearly demanded advertisement and formal entries, for not every architect otherwise qualified would have been willing to throw up his work for several months in order to undertake a tour of study abroad at short notice. The choice had to be made, of course, from a number who were willing and able to go. But I do not think the Guildford Cathedral Committee need fear that any architect, however eminent, whom they may select to compete for a certain fee of 500 guineas, would declare himself unable or unwilling to enter upon the task. And what harm if he did? They have the whole of the profession to choose from. And the executed work of "architects who have been engaged in the design of cathedrals or churches" is quite accessible to them without requiring to be submitted as though it were a birth certificate or an unpublished thesis. It is possible that the submission of portfolios may make the task of selection easier; I should have thought the opposite would be conspicuously true. However, that, as I say, is their affair, and I apologize for tacking this digression to the end of a letter meant to be sparing of words.

T. F. WIGHTWICK

Beachy Head Memorial

SIR,—I am one of those who consider that sufficient credit is not given to those architects who show great ingenuity in utilizing existing examples of ancient craftsmanship in such a way as to enhance the beauty of a new design.

True, you occasionally illustrate in your pages new boardrooms containing Georgian panelling, new houses where an Adam mantelpiece is utilized in the drawing-room, and new banks where early-nineteenth-century screen walls



Commemorative seat at Beachy Head (see accompanying letter by C. H. Neurdein).

are made to take the place of the ground floor. In all these jobs, however, the old work represents only a small proportion of the whole.

The commemorative seat on Beachy Head unveiled last autumn by the Duke and Duchess of York is a good example of the kind of thing I have in mind. Here the architect was obviously faced with the question of composing a pleasant design out of the following elements :

(a) Four gate-piers.
(b) Four stone balls.
(c) One curved pediment.
(d) Four triglyphs with eight *guttae* only between them.
(e) Two lead fanlights.

The accompanying photograph, which I do not think has so far adorned your JOURNAL, shows clearly with what skill these elements have been assembled. Personally, I am inclined to feel that a powerful Kent fireplace in the centre of the design would have supplied a focal point which at present is somewhat lacking.

C. H. NEURDEIN

Professional Etiquette

SIR,—The amendment in the first paragraph of clause 3 of the Code of Professional Practice of the R.I.B.A. Bylaws, as reported on page 356 of the JOURNAL for September 3, is interesting, especially in these days when so many members of our noble profession run their businesses on somewhat similar lines to that of grocers and cheese merchants.

The clause referred to reads : "*An architect must not advertise nor offer his services by means of circulars or otherwise.*"

" Otherwise " is a very comprehensive word. In the event of a breach of this bylaw, what action is to be taken by the Institute?

Who is to report such cases of breach and how is the evidence to be presented? No one wants to be the tale-bearer, even less so when he himself has suffered by the meanness of another. Is it not time we ceased to speak of the business of architecture as a profession or an art? It certainly is looked upon as a mere business by the average lay-man and client, and no wonder.

Most clients are not looking for artists, but for the man who will give the most for the least.

If this new " Code " is to be enforced, is it not time that the Institute cleaned out some of the men who treat the profession as a business without regard to standard fees, *esprit de corps*, or any other consideration of common decency? In the provinces it is certainly a great handicap to the getting of commissions to be a member of the Institute. I could quote many instances to prove this statement.

Do not let us be deceived any longer. Clients, as a rule, unless they want £2,000,000 cathedrals, are not concerned with a man's artistic qualifications or any idealistic code. This is sad but true in the majority of cases.

WILLIAM DAVIDSON

The Mansard Roof

SIR,—May I add fuel to this controversy ? The simple mansard with one row of dormers in the lower pitch (and one in the upper if it be reasonably steep) is an entirely sane, functional and lovely roof. In Bath and Bristol, two of our proudest cities, it is as common as clouds. It belongs to the structure which it covers and is one with it. But in London the badly-written bylaw quoted by Mr. Maxwell Fry, who must have shivered all down his literary spine when he read it, has caused the misuse of which he complains. Heavy dormers, tier above tier, indicating the weight of many stories supported by a sloping plane, would give a cab-horse the staggers—if one were left. Nevertheless, a proper mansard is just as proper in London as in Bath.

The alternative of " building in set-backs," a horrid phrase for a bad job, belongs at present to the realm of stage architecture. No designer has yet convincingly related the terraces to one another, and they resemble walls either sinking down or popping up one behind another. I wish Mr. Maxwell Fry or Mr. T. P. Bennett would produce the synthesis we await.

P. M. STRATTON

Regarding Doors and Windows

SIR,—As far as sliding doors are concerned, I am prepared to yield to the objections raised by two correspondents in your last issue. Mr. H. D., in attributing the death of the Venetian blind to the " fresh air " movement, produces the very arguments which will, I hope, prove fatal to the modern substitute.

The alternatives to the Venetian blind are : (1) a curtain of some heavy material, or (2) a light chintz curtain. The heavy curtain shuts out light and air. If you are changing your clothes by day, you must switch on the electric light, or leave the curtains not quite closed. The light curtain is quite good from the ventilation point of view (not as good as the Venetian blind, of course), but you cannot darken the room by day in, say, the case of an invalid in bed, or for a quiet nap on a Sunday afternoon. In a high wind with the window open, the curtain blows all over the place, and is liable to afford the neighbours (and actually did in my case only last week) a full view of the owner of the house in the midst of his ablutions and an alarming state of négligé.

With the Venetian blind you can control the amount of light and draughts admitted to the room, and if it does rattle on a windy day we may safely leave it to the ingenuity of Mr. Duncan, your other correspondent, to overcome this disability.

While on the subject of ventilation, I should like, sir, with your permission, to start yet another hare. Why, oh why are the bars that control the opening of casement windows made with so few holes ? On a cold night in winter one must perish of cold or shut the window tight, and hope, generally not in vain, that there are sufficient unauthorized draughts to prevent the possibility of suffocation.

HENRY B. BLESSINGTON

Gas v. *Electricity*

SIR,—The letter reprinted from *The Surrey Mirror* in last week's issue of THE ARCHITECTS' JOURNAL provides the architect with a ready formula for calculating the relative costs of gas and electricity for cooking and heating installations.

The calculations will probably be more welcome reading to the gas than to the electric supply companies. The example given of the East Surrey Gas Company with a charge of 13·4d. per therm would necessitate the power supply cost of electricity being ½d. per unit; in large towns gas is relatively cheaper, and would give a still lower figure for electricity to compete with.

The difference in labour saving between up-to-date gas and electric cookers is negligible, but the saving in the initial cost of building must be remembered. It is probable that in view of the memoranda sent by the Ministry of Health to local authorities the bylaws will, in future, insist that all gas flues must be taken above the roof.

The problem of cheap electricity for general use is an urgent one and is not confined to this country. Recently, while staying at a small hotel in Switzerland, in a canton where electricity is generated on most advantageous methods by water power, the proprietor told me he found it cheaper to cook by wood and imported coal. I have also found in Sweden, another country peculiarly well provided with water power, that in a house within forty miles of the great generating station of Trollhätten, while the lighting was provided by electricity the cooking was still more economically done on the old-fashioned wood fuel range.

L. E. WILLIAMS

Forty-five Churches Fund

SIR,—I much regret to learn from the Secretary of the Forty-five Churches Fund that his Committee has decided that " in all the circumstances " my proposal that the matter of designs

should be left to open competition is "impracticable."

Last May the then Secretary of the Fund—which, with the blessing of the London Diocesan Church Extension Appeal, was opened to provide money for the erection of forty-five new churches in Greater London—wrote to me: "I have some sort of rough idea in my head on the lines of stock designs, perhaps three or four at either varying or similar cost."

I, for one, am heartily thankful that the late Sir Christopher Wren did not keep a set of "stock designs" in his drawing office.

G. B. J. ATHOE

(SECRETARY, INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS)

Sheffield City Architect's Honorarium

A further stage in the controversy that has been aroused by the decision to pay an honorarium of £1,000 to the Sheffield city architect has been reached. Alderman E. G. Rowlinson, of Sheffield, in a letter addressed to *The Sheffield Mail*, says: The general demand in the city for a central library to replace the present dangerous structure has been before the city for very many years, and eventually the City Council decided to embark upon a scheme for an up-to-date library.

When the scheme began to take shape, Alderman Graves indicated to me that he was prepared to give a substantial sum towards adding to the library a fine central art gallery, also much needed. Considerable negotiations took place, many visits were paid to the site, and various plans were discussed. The city architect was asked to get out designs, and eventually one was provisionally agreed upon, and Alderman Graves indicated that he would give the sum of £30,000 towards the construction of the art gallery.

As plainly stated by the architects' organization, in recent letters to the Press, large jobs like this are not included in the ordinary duties of a city architect. However, Alderman Graves and the committee, with full confidence in the merit of his plans, were anxious that the city architect should undertake the work, and it was ultimately agreed that a sum of £500 per year for two years should be his recompense for this addition to his normal duties.

The original arrangement with Alderman Graves entailed the commencement of the expenditure of his money when the upper part of the building, the art gallery, commenced.

Greatly daring, I asked Alderman Graves if he would be good enough to allow the city to use his money in the early stages of the building, so that the city's money could be used for the latter part of the scheme, thereby saving the interest on the money otherwise payable by the Corporation during the first year.

Alderman Graves very kindly consented to that arrangement, which, as was pointed out to him, would far more than pay for the grant to the city architect.

If the first part of the building takes only one year it will be seen that at 5 per cent. on the £30,000 the sum of £1,500 represents the additional advantage to the city's finances as compared with the original offer.

General consent having been received to this proposal, the preliminary arrangements have now been proceeding for twelve months.

I was, personally, exceedingly sorry, and I feel sure that Alderman Graves was greatly hurt and surprised (as his speech at the Council indicated) when the speeches were made without regard to facts, and without any consideration for the wishes of one who has been the city's greatest benefactor, and who, in effect, has more than paid the fees referred to, in addition to his original gift.

The alternative to this arrangement would have been to put the design and execution of the architectural work out of competition. Had such a course been taken, the fees would have been roughly £6,000, made up of £1,000 to the city architect and £1,400 for the two temporary assistants for this work, representing a saving of approximately £3,600 to the ratepayers of the city.

Settling-Up Honeywood: xvi

A SETTLEMENT AND AN UNSETTLEMENT

BY KARSHISH

(H. B. CRESWELL)

Grigblay, the builder, has refused to accept responsibility for defects in the interior painting after Sir Leslie Brash, the owner, has failed to fix the blame on the manufacturers. The extras account has been for some time a subject of dispute between Grigblay and Spinlove, the architect.

SPINLOVE TO BRASH

21/9/26.

[*This letter was evidently written before Spinlove received Grigblay's, of the same date, refusing to make good defective painting.*]

Dear Sir Leslie Brash,

I am in receipt of your letter and enclosures and have written to Grigblay. He will, I fear, without doubt, refuse to make good the paint-work, and for the reasons he before gave—namely, that he only painted with Riddoppo when you undertook to accept responsibility for the results. I inspected the painting on several occasions while it was in progress and could find no fault with the way the work was being done; in fact, Grigblay put his foreman decorator in charge so that it should have special attention.

I will set aside Saturday morning to go into the matter with you, as you ask, but as Grigblay will certainly refuse to go back on his decision to have nothing more to do with the painting at Honeywood, and I have no experience of Riddoppo, the composition of which is, as you know, a trade secret, I am afraid I shall not be of much help to you.

Yours sincerely,

We here see Spinlove at his old game of writing letters that are not only unnecessary but are the very soul of tactlessness. The mention of his name by Brash's solicitors as possibly liable, jointly with Grigblay, has made him eager to exculpate himself and consolidate Grigblay's position.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 23/9/26.

With a view to obviating the painful necessity of giving unpleasantly frank indications of my feelings when I receive you, I write to intimate that when I give instructions to my professional adviser I anticipate they will be performed *without* unnecessary refractory comment.

The whole of this infernal muddle anent Riddoppo is sufficiently exasperating without the additional vexation of disparaging opinions which—may I be allowed to asseverate?—I have not invited, and do not desire.

For perfectly logical reasons I require Mr. Grigblay's final answer to my demands, which I apprehend I shall in due course receive; but I do *not* desire to be informed what, in your opinion, that answer is eventually likely to be; I do *not* ask to be told that Mr. Grigblay has previously obstinately refused restitution; I do *not* ask to be reminded that the fellow obstreperously desires to put the blame on me; I do *not* require to be instructed that the composition of Riddoppo is of a secret nature, and I do *not* ask you to reiterate over and over again that you know nothing of the paint, and for the very obvious and comprehensive reason that I am already redundantly informed upon the whole of those matters.

The only intimation that your communication conveys with which I was

not previously conversant is that you espouse the contentious representations of Grigblay in opposition to your employer's interests; and that though you profess to have no acquaintance with the ingredients of which Riddoppo is composed, you asseverate complete confidence in your ability to decide the appropriate method of applying it. This—you must permit me to intimate—causes me considerable astonishment.

Yours sincerely,

We can imagine Spinlove aghast at this reception of his letter, and asking himself, "What on earth have I done now?", but although Brash's expression of irritation may not be excusable, his annoyance certainly is so. We have before observed an engaging generosity and frankness of nature in old Brash of which this letter seems only another example. Spinlove's smug letter has exasperated him, and he acts on an impulse to let Spinlove know what he feels about it, so that there need be no sour reserves in his greeting of his guest. It may be, of course, that his native pepper got the upper hand and that he let fly, as we have often seen him do before; but, even so, there is an ingenuousness and simplicity about the old man which is disarming.

SPINLOVE TO GRIGBLAY

Dear Sir, 27/9/26.

I saw Sir Leslie Brash on Saturday and gave him your answer to his demand that you should repaint. I understand he is going to reconsider the whole question.

Yours faithfully,

GRIGBLAY TO SPINLOVE

Dear Sir, 29/9/26.

We have now further considered the items of the Statement of Account which remained in dispute after your interview with Mr. Grigblay, and as we wish the account to be now settled we offer to reduce certain of our charges, but only supposing you meet us by allowing the others to stand; failing which we must withdraw our offer and hold to our full claim, as we consider our charges fair, and we have already met your views in a reasonable way and think we are entitled to a little consideration, as all give and no take is not the treatment we are accustomed to from architects, and one way and another this job has not been much profit to us, and if we see ourselves clear when all is done it is about as much as we can expect.

MAKING GOOD DRY ROT

We must refuse to withdraw this item. If we did we should be agreeing it was a defect under the contract, which we have all along disputed and cannot take responsibility for.

[*If Grigblay met the cost of this work he would involve himself in liability for all further dry rot due to the same cause. It should be remembered, also, that the Courts have decided that a builder's liability for defects is not limited by the date named in the contract as terminating his liability when it can be shown that the defect existed, or was latent, before the expiration of the time fixed by that date; so that it is of special importance to Grigblay that the architect should, by passing the item as an extra, acknowledge that the cause of the dry rot is not a defect for which Grigblay is responsible. It is, of course, equally important for Spinlove that he should not exonerate Grigblay by allowing the item to rank as an extra; but Spinlove, who is apparently unconscious of the dreadful disaster the dry rot may portend, is probably also unconscious of the consequences of agreeing that Brash shall pay for restoring the first manifestation of it. The amount in dispute is likely to be only ten or fifteen pounds, but if it were only as many shillings Grigblay, who understands well how he stands, would be just as obstinate in claiming payment. The case, in fact, is a good instance of the considerations of policy with which architects must temper discretion, and even sometimes moral justice, in settling up building accounts. The bearing of each detail upon the interpretation of the contract as a whole is always in the mind of the experienced man*].

RAKING JOINTS AND SPECIAL POINTING AFTER FROST

We are willing to knock off £17, making the charge £32 6s. 3d., which is, as near as we can measure, 4½d. a foot for special.

SPECIAL POINTING TO ORDER IN LIEU OF PLAIN STRUCK JOINT

This claim we cannot withdraw. We were willing to point with plain struck where frost pulled out joint, and to finish new to match in place of striking off as specified; but you ordered a special pointing, and we are entitled to extra cost of special over ordinary flat, as already pointed out.

[*Apparently Spinlove specified that the faces should be finished by pressing the mortar out of the joints and striking off surplus with trowel as the bricks were laid. A sharp frost spoilt some of this work while it was new, and the joints had to be raked and pointed, which made it necessary for the whole of the brick faces afterwards built to be pointed to match; and Spinlove, it seems, required a method of pointing which Grigblay claims was more costly than what properly could be required of him under the contract. The justice of this claim seems decidedly doubtful, but it is necessary to know the whole of the facts before forming any opinion. The sum involved, as shown in the statement printed in the seventh instalment of this series (issue for July 9), is £134.*]

ALTERATION TO GROUND-FLOOR WINDOW HEADS

We regret we cannot accept your view of this matter. Your ½-in. joinery detail figured height from ground floor, but this varied from datum level, as the floor had been lowered 1½ in. by your orders, and we cannot accept responsibility for same.

[*As recorded in "The Honeywood File," Spinlove forgot that the floor had been lowered and figured the dimension wrongly; but he always contended that it was Grigblay's duty to see that the frames were made to fit the building. Grigblay's refusal is so worded as to enforce the position the dry rot makes it important for him to hold, namely, that he accepts no responsibility for the lowering of the floor.*]

RENEWING TWO CATCH PITS

We are willing to cut this out.

We have given these matters close attention and this is the last we have to say and hope you will now accept our offer and not oblige us to withdraw it, as we understand Mr. Tinge has been waiting for your decision on outstanding points for a long time and has the whole of account ready several weeks, so that this will now settle everything.

Yours faithfully,

SPINLOVE TO GRIGBLAY

Dear Sirs, 4/10/26.

I have considered your offer and decided to accept it and settle the account on your terms. I saw Mr. Tinge to-day and he says he can have the statement of account ready some time next week.

Yours faithfully,

Spinlove seems to have contested every inch of the ground in this long battle of the extras, and in a way that does justice to his conscientiousness and native tenacity. At the same time he appears to have been a little hard on Grigblay, who, like every builder that takes a craftsman's pride in his work, has given a good deal more than his contract demands of him. However, the figure arrived at is likely to be a fair one; for Grigblay is well able to take care of himself, and Bloggs knows how to take care of him too—in fact, appearances are that no fly of any kind has ever settled on Bloggs.

LADY BRASH TO SPINLOVE

Dear Mr. Spinlove, 10/10/26.

They have all come back again and *more than ever*, even Phyllis says so now, and what is to be done I really do not know, as, after the gentleman who came, they all went away and Leslie said that was the end but now I do not know what he will say as Mrs. Godolphin, who is staying here, notices them very much at night and it affects her *breathing* and I am the *same*, so it must be very bad and something must be done about it but you will know best so will you say *at once* as it is so very unpleasant for everyone and cannot be allowed.

How very cold the weather has been of late.

Yours sincerely,

SPINLOVE TO LADY BRASH

Dear Lady Brash, 11/10/26.

I understand from your letter that you still think there is something wrong with the drains, but that cannot be the case as you will remember that question was settled when the sanitary experts tested the drains four or five months ago. If there had been anything amiss they would certainly have discovered it, so you may dismiss the idea entirely and think no more about it. What you noticed is perhaps some smell from the kitchen. Are you sure the servants, to save trouble, have not been using the range as a refuse-destructor—that is, burning fat and kitchen residues and rubbish there, instead of throwing them into the dustbin? They may do this before they leave the kitchen at night, and it may give rise to most unpleasant smells and should not be allowed, as it burns the fire-bars and cheeks.

Yes, the weather has been wretchedly cold.

Yours sincerely,

This seems a most inadequate reply to Lady Brash's letter.

TINGE (QUANTITY SURVEYOR) TO SPINLOVE

Dear Sir, 11/10/26.

Enclosed find Statement. Copy has been sent Grigblay.

Yours faithfully,

Tinge, at any rate, does not waste words. The statement of account, which must be long and intricate, is not in the file. It is, no doubt, put away with the contract documents.

SPINLOVE TO GRIGBLAY

Dear Sir, 12/10/26.

I have received statement of account from Mr. Tinge showing total £20,242 11s. 9d. I shall be glad if you will confirm that you accept this figure.

Yours faithfully,

As Spinlove has already agreed with Grigblay the items making up the account, and Tinge is in the position of auditor, valuer or assessor, Spinlove's invitation to Grigblay to agree the figure Tinge has arrived at is little more than a formality, though, as a matter of business, a necessary one. Tinge is expressly appointed under the contract to determine the total figure; and neither Grigblay nor Spinlove can object to the account unless it should appear that Tinge has misunderstood instructions or made any mistake.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 12/10/26.

I have just received the statement of account and am very glad to be able to tell you that I have succeeded in effecting a three hundred and fifty pound saving. The exact figure is £337 3s. 5d., making the account £1,555 11s. 2d., instead of £1,892 14s. 7d., which, you will remember, was the total originally shown. To this have to be added certain items which have come in since the original account was drawn up, totalling £54 2s. 2d., and a few others that Grigblay accidentally omitted—value £112 1s. 8d., so that, after allowing certain profits on the new items (£22 4s. 9d.), the total figure shown is £1,753 19s. 9d., which, after including quantity surveyor's fees, £58 12s., gives a final total of £1,802 11s. 9d. I thought you would like to know the figures at once. With kind regards

Yours sincerely,

Brash must have been glad Spinlove's letter ended when it did, for the vaunted three hundred and fifty pound gain has already dwindled to £90, and, at the pace Spinlove was keeping, another half-dozen lines would have brought him to a three hundred and fifty pound loss. Whether Spinlove's is the best method of making a saving on a building account appetising to a client I am not psychologist enough to determine, but I am disposed to doubt it. If I wanted a hungry lion to receive the highest possible gratification from the gift of a cutlet, I should not first offer him a leg of mutton and then snatch it away.

We have before noticed an adroitness in Spinlove on these occasions, which is so excessive as to be almost unholy. His persistency has no doubt saved Brash money; but the amount for which Spinlove claims credit is the whole of the difference between the totals of the Interim Summary and of the totals of corresponding items in the Final Statement. This difference, however, is not due to Spinlove, but in the main to Grigblay's wisdom in affixing full covering figures to those items in the Summary the exact value of which remained to be ascertained; and it is due to his foresight that, after the inevitable omissions and additions have been set against one another, the Final Statement shows a saving, and not an excess, on the Interim Summary. Spinlove, however, is perhaps unaware of this. With characteristic impulsiveness he rushes in front of the curtain without waiting to reflect whether he deserves the plaudits he invites. It is a pity, in view of the air of masterly elucidation he adopts, that he has made a slip of ten pounds in his manipulation of the figures. An architect who originates or passes inaccurate figures does himself very great damage for, obviously, his client would not entrust him with his affairs at all unless he had confidence in his exactness in handling them. It is to be understood that Spinlove is dealing only with total of extras—£1,802 11s. 9d. This, added to the contract sum, £18,440, makes the total of account £20,242 11s. 9d.

GRIGBLAY TO SPINLOVE

Dear Sir, 14/10/26.

We agree account and Mr. Tinge's figures of total cost, £20,242 11s. 9d., and balance due, £1,242 11s. 9d. As we shall be entitled to said balance on 10th November we shall be glad to have list of any defect outstanding so that we may now get contract completed.

Yours faithfully,

Grigblay has been paid by instalments a total of £19,000, and this balance due is, in main part, money held back as security for making good defects appearing within nine months of completion of the work, which was acknowledged by Spinlove to be accomplished on February 10. Grigblay means to have his money directly it is due on November 10, and his intention is no doubt braced by the dispute about Riddoppo. What we have to expect is that Grigblay will demand his balance on November 10, and Brash will refuse payment on the ground that Riddoppo is a defect for which Grigblay is accountable.

LADY BRASH TO SPINLOVE

Dear Mr. Spinlove, 14/10/26.

It is very kind of you to advise me not to trouble about them, but it is not the kitchen range, for I would *never* allow it and cook says she never does and it is much more in her room which is why she complains so, and something must be done at once as poor Mrs. Godolphin left the house in a terrible fit of coughing as I knew she would, and even the doctor feared asthma and told her she should if it affected her so. It may still be the *drains*, he says, only no one will decide though I have spoken to Leslie time after time, but he comes home tomorrow, I am thankful to say, for something has got to be done or we shall all have to leave too.

How chilly it is for this time of year, but the radiators are a godsend! Would it cost much to put one in the Ideal attic—I wonder? The fire gives out *no heat* up there, I find, but then there are no smells *there*!

Yours sincerely,

MISS PHYLLIS BRASH TO SPINLOVE

Dear Jazz, 14/10/26.

Is it the *architecture* of the house that smells? If so, you ought to choose a different style; the free Tudor, as you call it, is altogether too rather. Mum is getting herself into one of her states over it and you ought to come down and sniff around. It is no good sounding the "all's well" any more. "All's wrong" is the tuney, for we none of us like living in a third class in a S.R. tunnel. You must take this seriously, please, for it *is* serious. Yours,

PUD.

[NEXT WEEK: XVII—SPINLOVE COMES TO HEEL]

THE SKETCH CLUB

ELEVENTH SESSION

DRAWINGS BY PRIZE-WINNERS

WEATHER conditions all too clearly made things difficult for entrants for the second of the Holiday Sketches Competitions. The level of the first entries was reached neither in quantity nor in quality. The judges were placed in the difficulty of finding nothing that they could conscientiously recommend for a first prize, but assessed the two drawings reproduced on this page as worthy of being bracketed for second place. Accordingly, it is proposed to solve the problem thus presented by awarding prizes of five guineas each to—

Mr. Vincent Warrilow ("Rhine"),
50 Carron Street, Fenton,
Stoke-on-Trent, Staffs,

and to—

Mr. Ronald Knight ("Jeux"),
Broadmead, Broadmead Road,
Woodford Green, Essex,

and by transferring the remaining five guineas of prize money to the third Holiday Sketches Competition (closing date : September 15 ; for rules see page xlv). There will, therefore, be three prizes in this event—one of ten guineas and two of five guineas each—in place of the two originally contemplated. Of late the weather has been good ; a bumper result is anticipated.



A Street in Mainz, Germany.

By Vincent Warrilow.

(Pencil : 11″ × 8″)



Beverley Minster, Yorkshire.

By Ronald Knight.

(Pencil : 11″ × 7½″)

(Pencil : 11″ × 7½″)



Stonegate, York.
By Ronald Knight. (Pencil : 11″ × 8¼″)



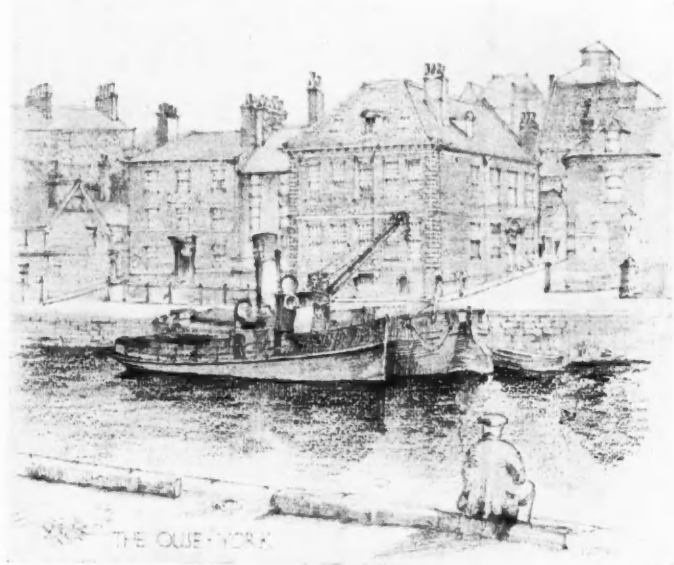
Viaduct at Knaresborough, Yorkshire.
By Ronald Knight. (Pencil : 7″ × 10½″)



The Dom at Mainz.
By Vincent Warrilow. (Pencil : 11″ × 9″)



Market Square, Helmsley, Yorkshire.
By Ronald Knight. (Pencil : 9″ × 10″)



At Frankfurt-am-Main.
By Vincent Warrilow. (Pencil : 11″ × 8″)



The River Ouse, at York.
By Ronald Knight. (Pencil and coloured crayon : 9″ × 10″)

QUESTIONS THAT ARISE

Colouring Metal

H. R. writes: "*What is your expert's opinion on the following two questions regarding colouring metal? a: A copper dome has turned black instead of green; what will make it green? b: Is there a commercial process which will turn bronze in shop fronts, etc., green, in a manner that is suitable for the wear received in cleaning windows?*"

Assuming that the dome has not previously received chemical treatment, in turning black it is merely following its normal course to acquire a natural green patina. When exposed to the outside air, copper always turns black before it becomes green; the green patina is acquired by the continued action of weather extending over a number of years. Very little can be done to hasten the formation of the natural green patina, but an artificial green colour can be obtained by spraying the surface of the copper with a solution of sulphate of ammonia ($\frac{1}{2}$ lb. of the salt to each gallon of water). This work must be carried out during a spell of dry weather, otherwise rain will remove the corrosion products before they obtain a grip on the metal. Several applications of the solution may be necessary to start the corrosion, and it should be noted that it may take several weeks for the green colour to develop so that it will be visible from ground level. "*Acid*" sulphate of ammonia, only obtainable direct from the local gasworks, must be used—not "neutral" sulphate of ammonia, which is a soil fertilizer.

The above treatment is applicable to copper which is already blackened by exposure, and also to bright, unexposed metal. Where bright metal is in question, the surface should be cleaned prior to treatment, for oil is used in the rolling of the copper sheets and some of it is forced, during the process, into the grain of the metal. It is this oil which often retards the formation of the natural patina, as well as any coloration attempted by artificial means. To remove this oil effectively and so expose the metal, the copper surface of a dome, *in situ*, should be scrubbed with a strong hot potash lye (made by dissolving $\frac{1}{2}$ lb. of potash to each gallon of water) and then well rinsed with hot water before receiving further treatment.

Regarding commercial processes available for producing a green coloration on bronze shop fronts, it is doubtful whether any artificial means can successfully resist possible injury in window cleaning, due either to abrasion or to the nature of cleaning materials employed. The best course is to induce the formation of an artificial patina by a solution and to protect the colour by a coat of white shellac dissolved in spirit, the shellac being applied in dry weather, at least a month after the green colour has developed to its entire intensity. Two books are available in which to find formulæ for solutions: (*a*) *Metal Colouring and Bronzing*,[1] by A. H. Hiorns; (*b*) *The Chemical Colouring of Metals*,[2] by S. Field and S. R. Bonney.

A very close resemblance to the natural green patina, it may be added, can be obtained by merely painting the surface of copper and bronze with French verdigris, finely ground in varnish which has been thinned out with turpentine. The mixture of varnish and turpentine should be in such proportions that an eggshell gloss is produced in the finished coat.

C. H. B.

The Editor invites readers' enquiries on all matters connected directly or indirectly with architectural practice. These enquiries are dealt with by a board of experts to which additions are constantly being made as and when the need arises. Readers must enclose name and address.

Tube-driven Wells

H. A. W. writes: "*Since your expert's reply to my query regarding tube wells* (THE ARCHITECTS' JOURNAL for July 2 last, page 21) *I have had a hole sunk on the site in Devon. I find that the subsoil for a depth of about 8 to 10 ft. is composed of clayish gravel of a reddish colour, mostly small stones up to $\frac{3}{4}$ in. diameter. There are, however, a fair number of larger stones, somewhat like flints, up to 6 to 8 in. in diameter. There appears to be no stiff clay. I am told by a local builder that there is a likelihood of ample water for the small house I have in mind to erect at a depth of not much more than 20 ft. I am hoping that with this additional information your expert might be able to give me more definite advice as to the type of well I should adopt.*"

Further to the information already supplied on the subject of tube-driven wells for water finding in Devon, your correspondent is evidently in a position where a tube-driven well is practicable for at least shallow depths. From his description of the subsoil there should be no difficulty in driving a tube for a depth of about 8 to 10 feet. Should, however, he fail to encounter water before coming on to a hard stratum, boring would be necessary. Since he is so near the depth which local information gives as a likely one for water, it would be a simple matter to drive a tube in the sinking already made, which is presumably a dug pit.

In the event of failure to find water above the sandstone, the safest way is to refer the question to a firm of specialists in well sinking. As a preliminary, however, the cheapness of the driven tube well will justify it to within the estimated range of water location, the bored well being much more expensive.

A. H. H.

[1] London: Macmillan and Co. (1911).
[2] London: Chapman and Hall, Ltd. (1925).

Boundary Fence

S. G. writes: "*The framework of a boarded boundary fence is on my side. Does this indicate that the fence is my property?*"

The law generally regards a fence rather as a barrier against intrusion, than as a boundary mark of property.

It is usually understood that, in the absence of an agreement, the person who erects a fence must erect it on his own land. Hence a post and rail fence is sometimes supposed to belong to the person who could drive the nails from his own side of the fence, but this rule is not universal.

Possibly some indication will be given on the sale plan of the estate to indicate the ownership of the fences on the various sides of the respective plots, and the original vendor of the estate or his agent should be consulted.

The generally accepted mark is a T-head placed against each line on the plan indicating fences, to show the owner.

If repairs to the fence are done by both the owners of the adjacent properties, a tenancy in common may be established.

A. T. A.

A Damp Wall

N. S. writes: "*I have just erected half a dozen shops with flats over, three stories in height, on a new estate in one of the outlying districts of London. The exposed flank wall at one end is built of Flettons, toothed, for future extensions, and trouble is being experienced with dampness penetrating through this wall. Further shops are not likely to be added for at least five years. What would be the cheapest method of treating this wall? Would a good waterproofing liquid coated on the outside walling last this period?*"

No solid walling in exposed positions, not more than 9 ins. thick, can be guaranteed to keep out dampness. In applying a waterproof liquid coating to the outside face of the walling, it is essential that the wall should be dry, and great care must be exercised in brushing the liquid into all cracks and holes.

I have doubts, too, whether the two necessary coats will last the five years over such a wide and exposed area.

Why not cover the walls with weather-boarding, and treat this material with creosote? Even though this looks an unfinished job, so also do Flettons toothed for future extension. E. S.

LITERATURE

COLOUR BLOCK PRINT MAKING

THIS book is an abridgment of the author's larger work, which was found to be too detailed by those using it as a textbook from which to teach the craft in schools and clubs.

The history of the lino block goes back to the last years of the nineteenth century only, when the Germans substituted lino for wood owing to the greater ease with which the former material is cut. It is a good material for the beginner and for those who wish to obtain only an elementary knowledge of the knife and gouge. Nevertheless, the medium has its own effect—a breadth and softness which is suitable for certain carefully-chosen and simple subjects. When sharpness and refinement are sought, a wood block should be used.

The author, without insisting that his ways of cutting and printing are the best, describes his procedure by means of a photograph of each main motion of the hands with the tools, and on the opposite page by notes explaining the motion. Thus, figure seventeen shows the right hand using the larger gouge to take out a sky, and *vis-à-vis* is the appropriate instruction.

With a little help from a master, any child can follow the method demonstrated in this book, and cut its own blocks and print its own pictures; nor should one of the results be to produce hundreds of mediocre artists, but rather to educate the eye and hand and power of observation of those who will be tomorrow's citizens.

The book is well reproduced and the price is moderate. P. M. STRATTON

Simple Colour Block Print Making from Linoleum Blocks. By Hesketh Hubbard, R.O.I., R.B.A. London: The Forest Press. Price 5s. net.



Cutting the linoleum block. The knife is held at an angle of about 45° with the flat edge against the line to be cut.

[*From* Simple Colour Block Print Making from Linoleum Blocks.]

SOCIETIES AND SCHOOLS

OFFICIAL ARCHITECTURE

A DEBATE on official architecture, arranged by the Association of Architects, Surveyors and Technical Assistants, will be held at the Building Exhibition, Olympia, on Saturday, September 20. The chair will be occupied by Lord Riddell, and the speakers will include Messrs. H. V. Lanchester, F.R.I.B.A., and Wynn Owen, F.R.I.B.A.

S.P.A.B. RESEARCH SCHOLARSHIP

The newly-instituted scholarship of the Society for the Protection of Ancient Buildings for research work on ancient buildings, which is open to senior students of London Schools of Architecture, has been awarded to Mr. David Nye, of the Central School of Arts and Crafts.

ROYAL SANITARY INSTITUTE

The forty-second Congress and Health Exhibition of the Royal Sanitary Institute will, at the invitation of the Corporation, be held at Glasgow from July 4 to July 11, 1931, under the presidency of Sir Henry Mechan, LL.D.

BRIXTON SCHOOL OF BUILDING

The evening departments of the L.C.C. School of Building, Brixton, which commences on September 22, provide organized courses of training and individual classes for the purpose of instruction in the work of the building industry and of allied vocations and professions.

Although the courses of study and the scope of the instruction have been arranged primarily with a view to fitting the student for the practical duties of the various branches of the building industry, special consideration is given to the requirements of the recognized examinations held by independent bodies. Amongst these examining bodies the following receive special attention:—The Institute of Builders, the R.I.B.A., the Surveyors' Institution, the Institution of Structural Engineers and the Institution of Sanitary Engineers.

The classes of the architecture department are planned to meet all the requirements of the student of architecture as regards design, history of architecture and building, and drawing. The scheme of instruction is so arranged that an architectural course includes certain building subjects which are necessary to an architect's training.

A close co-ordination of the instruction in architecture and building construction is designed to ensure that the student shall obtain an intelligent grasp of the interdependence of the



An illustration of the linoleum key block, after the smoke rings have been cut away.

[*From* Simple Colour Block Print Making from Linoleum Blocks.]

structural and æsthetic elements of his work.

The grouping and scope of all the subjects are adapted to the requirements of the R.I.B.A.

The principal of the school is Mr. F. E. Drury, M.SC., TECH., M.I.STRUCT.E., F.I.SAN.E.; the vice-principal is Mr. A. Everett, B.SC. (Hons.), M.I.STRUCT.E., and the head of the architecture department is Mr. Mathew J. Dawson, F.R.I.B.A. Copies of the prospectus are obtainable on application to the principal.

NORTHERN POLYTECHNIC SCHOOL OF ARCHITECTURE

The Northern Polytechnic School of Architecture is officially recognised by the R.I.B.A., and students who complete satisfactorily the first three years' course of study in the school and pass in the school examinations are exempted from the R.I.B.A. intermediate examination. The new session commences on September 22.

The teaching staff consists of qualified practising architects, assisted by specialists in building science, acoustics, structural engineering, heating, ventilating, and other subjects relating to architectural practice. The department with which the school is associated also provides training for all branches of the building industry, and architectural students are thereby offered excellent opportunities of studying in the workshops and laboratories the many practical processes which they will ultimately be required to supervise.

The curriculum is arranged to provide the fullest possible training, and every aspect of architectural practice is dealt with by means of lectures, demonstrations, visits to buildings in course of erection and studio work.

The architectural department has recently been transferred to a new extension of the Polytechnic. This building contains fine studios and lecture rooms, and in addition up-to-date and fully equipped workshops for the various crafts.

The Head of Department of Architecture is Mr. T. E. Scott, F.R.I.B.A. Copies of the prospectus for the new session may be obtained from him on application at the Northern Polytechnic, Holloway Road, N.7.

L.C.C. SCHOOL OF ARTS AND CRAFTS

The new session of the L.C.C. School of Arts and Crafts, Southampton Row, W.C.1, will begin on Monday, September 22. The evening classes, which are held from 7 to 9 o'clock, provide the following instruction for students of architecture: Architectural design, testimonies of study for the R.I.B.A., and town planning, given by Messrs. S. B. Caulfield, F.R.I.B.A., Basil Oliver, F.R.I.B.A., and E. Frazer Tomlins, F.R.I.B.A.; building construction, by Mr. F. H. Mansford, L.R.I.B.A.; structural mechanics, by Mr. Ewart S. Andrews, B.SC.; modelling and stonecutting, by Mr. Alfred Turner, A.R.A.; general drawing, by Mr. F. W. Farleigh.

Other work of interest to architectural students includes life drawing, wood carving, metalwork, etc.

A series of related lectures and visits dealing with the most recent developments in the manufacture and uses of various building materials are held throughout the session.

Copies of the school's prospectus are obtainable on application to the principal, Mr. F. V. Burridge.

INTERNATIONAL CONGRESS FOR CONCRETE

The first International Congress for Concrete and Reinforced Concrete was held at Liège from September 1 to 6 last. The Congress was held in connection with the celebration of the Centenary of National Independence of Belgium, together with an international exhibition at Liège, which opened last week and will remain open for a period of six months.

The Council of the Institution of Structural Engineers, in the autumn of last year, accepted the formal invitation addressed by the Belgian Government to the Foreign Office, to undertake the formation of a British Section to represent this country at the Congress. The British Organizing Committee comprised: Chairman, Mr. J. Mitchell Moncrieff, M.INST.C.E. Members: Messrs. E. A. Black, A.M.INST.C.E.; E. W. Butler, M.I.STRUCT.E.; S. D. Carothers, M.INST.C.E.; C. S. Chettoe, B.SC., A.M.INST.C.E.; E. W. Monkhouse, M.INST.C.E., M.I.STRUCT.E.; W. Muirhead, M.INST.C.E., M.I.STRUCT.E.; F. H. Rogers, M.I.CHEM.E.; R. H. H. Stanger, F.C.S., A.M.INST.C.E., M.I.STRUCT.E.; H. D. Searles-Wood, F.R.I.B.A., M.I.STRUCT.E.; R. E. Stradling, D.SC., M.INST.C.E.; Major A. F. Day, R.E.; and Lt.-Col. E. B. Martin, D.S.O., M.INST.C.E.

The committee co-operated in securing the various technical reports and papers which were presented at the sessions.

Professor Beresford Pite, F.R.I.B.A., in a paper entitled "The Architecture of Concrete," gave consideration to the effect of the primary distinction in method between an architecture of stone or brickwork and an architecture of concrete. The idea, he pointed out, of internal adhesion belonging to the material producing homogeneity without anxious care, must be novel, and of the nature of a relief to the constructor; its attainment had always been his ideal, but the repugnance to the employment of concealed tie-rods for cohesion in walling was always manifested by the consistent tendency to rely either on trabeated or arcusted lines.

The new idea was revolutionary rather than evolutionary. It raised manifold questionings as to due architectural expression, and necessarily also it involved reconsideration of methods in the study of the practices of design, with the courses of training leading to its fulfilment. It would appear to be consequential, if we had not the experience of antiquity to the contrary, that a fundamental constructive method must deflect the architectural expression of construction from the traditional motives.

COMPETITIONS OPEN

September 30.—The Isle of Man Education Authority invited architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

October 1.—The Burton-on-Trent Local Education Authority invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor: H. T. Buckland, F.R.I.B.A. Premiums: £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs: October 1.

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invites architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor: A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs: October 20.

October 30.—The General Building Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums: £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs: October 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office,

Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young Communist Square), and will contain a mass musical stage and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, SEPTEMBER 10

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Special Coach Excursion to Woolwich. Start 2 p.m. It is hoped to visit St. Mary's Parish Church, Royal Artillery Institution, Rotunda Museum, Royal Artillery Barracks, and St. George's Garrison Church. Some of the buildings will be described by Philip C. Bursill. Tea will be provided at Brent House, Shooter's Hill. Return to London about 7 p.m. **2 p.m.**

VICTORIA AND ALBERT MUSEUM, South Kensington, S.W.7. Exhibition of English Mediæval Art in the North Court. Open until September 21, 10 a.m. to 6 p.m. (Thursdays, 10 a.m. to 10 p.m.) **10 a.m.**

ASSOCIATION OF PUBLIC LIGHTING ENGINEERS. Annual Meeting and Conference, to be held at Leicester. Until September 11.

SIXTH INTERNATIONAL ROAD CONGRESS, to be held at Washington. Until September 11.

THURSDAY, SEPTEMBER 11

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Italian Furniture." 12 noon. "Italian Decoration." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

FRIDAY, SEPTEMBER 12

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North-Western District meeting, to be held at Runcorn.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "French Furniture." By Miss M. Chamot. 12 noon. "Gothic Woodwork." By T. F. Wilson, F.R.S.A.I. 3 p.m. **12 noon.**

SATURDAY, SEPTEMBER 13

Sunrise, 6.30 a.m. Sunset, 7.21 p.m.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Early English Furniture." 12 noon. "Later English Furniture." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

WEDNESDAY, SEPTEMBER 17

LONDON SOCIETY, Lancaster House, St. James's S.W.1. Visits to the Flaxman Automatic Exchange, Mallord Street, Chelsea, and the Holborn Automatic Exchange, 268 High Holborn, W.C. **3 p.m.**

INTERNATIONAL BUILDING TRADES EXHIBITION, Olympia. Until October 1.

BRITISH GLASS CONVENTION. At Buxton. Until September 20. Morning: Meeting of the Council of the Society of Glass Technology. Afternoon: General Meeting of the Society of Glass Technology. Evening: Informal Presidential Reception of members and their friends at the Palace Hotel.

THURSDAY, SEPTEMBER 18

BRITISH GLASS CONVENTION. At Buxton. Morning: Official welcome by the Mayor and Corporation of Buxton, at the Peak Buildings. Presidential Address. Discussion on "Elimination of Waste in the Glass Industry," to be opened by Dr. Miles. Official luncheon. Evening: Mayoral Reception at the Palace Hotel.

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition, in the Galleries, of drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.). Until September 30. **10 a.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussions on "Marketing Methods in the Glass Industry" and "Public Propaganda in the Glass Industry," to be opened by Sir Francis Goodenough, C.B.E., and H. Gordon Selfridge, respectively. Afternoon: Golf Competition for championship of the Glass Industry. Evening: Banquet at the Palace Hotel.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Meeting to be held at Southampton.

SATURDAY, SEPTEMBER 20

Sunrise, 6.41 a.m. Sunset, 7.5 p.m.

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS, 26 Buckingham Gate, S.W.1. Debate on official architecture, to be held at the Building Exhibition, Olympia. Chairman, Lord Riddell. Speakers will include Wynn Owen, F.R.I.B.A., and H. V. Lanchester, F.R.I.B.A. **3 p.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussion on "The Convention—Present and Future," to be opened by Mr. Walter Chance, M.A., J.P.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Stained Glass (1)." 12 noon. "Stained Glass (2)." 3 p.m. Both lectures by Miss M. Chamot. **12 noon.**

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North Wales District meeting, to be held at Bangor.

WELSH SCHOOL OF ARCHITECTURE, Technical College, Cardiff. Latest date for submission of application forms for the Scholarship Examinations.

MONDAY, SEPTEMBER 22

NORTHERN POLYTECHNIC, Holloway, N.7. Commencement of new term.

TUESDAY, SEPTEMBER 23

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Church of St. Martin-in-the Fields, Charing Cross, W.C.2. Tea will be served in the Crypt. **3 p.m.**

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS. London and Home Counties Branch. Dinner and Dance to be held at the Quadrant Restaurant, Regent Street, W. Tickets, 7s. 6d.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Yorkshire District meeting, to be held at Hipperholme.

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Church Bell Foundry of Mears and Stainbank, 32-34 Whitechapel Road, E.1. **11.30 a.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Continental Glass." 12 noon. "English Domestic Glass." 3 p.m. Both lectures by Miss B. Goldsmid. **12 noon.**

MONDAY, SEPTEMBER 29

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Sanitary Inspectors' Course. **6 p.m.**

TUESDAY, SEPTEMBER 30

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. "The Making of a Cathedral—Liverpool." By E. W. Harvey-Piper. (Lantern Illustrations.) **7 p.m.**

ISLE OF MAN GRAMMAR SCHOOL COMPETITION. Latest date for submission of designs.

WEDNESDAY, OCTOBER 1

BURTON-ON-TRENT SCHOOL COMPETITION. Latest date for submission of designs.

FRIDAY, OCTOBER 3

TOWN PLANNING INSTITUTE. Twelfth Annual Country Meeting, to be held at Leicester. Until October 5. Full particulars are not yet available.

SATURDAY, OCTOBER 4

Sunrise, 7.4 a.m. Sunset, 6.53 p.m.

MONDAY, OCTOBER 6

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Commencement of Winter Term.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Motor Coach Excursion: Special Visit to Greenhithe Cement Works. Leave Portland House, Tothill Street, Westminster, S.W.1, at 1.45 p.m Tickets obtainable from the Secretary of the Society. **1.45 p.m**

WELSH SCHOOL OF ARCHITECTURE, Technical College, Cardiff. Commencement of School Year.

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Smoke Inspectors' Course. **6 p.m.**

TUESDAY, OCTOBER 7

R.I.B.A., 9 Conduit Street, W.1. Closing date for applications for admission to the Intermediate Examination.

THURSDAY, OCTOBER 9

C.P.R.E. Third Annual Conference, to be held at Welwyn Garden City. Until October 11. Among the papers to be read are the following: "The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields." By Sir Lawrence Chubb. "Town and Regional Planning in their Relation to the Objects of the C.P.R.E." By Sir Theodore Chambers, K.B.E., F.S.I. "Education and Citizenship in their Relation to the Safeguarding of the Countryside, etc.," and "Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds." Each paper will be open to discussion.

THURSDAY, OCTOBER 16

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to Cement Marketing Company's Laboratory, Portland House, Tothill Street, Westminster, S.W.1. (Party limited to 30.) **7 p.m.**

MONDAY, OCTOBER 20

BIRMINGHAM WELFARE CENTRES COMPETITION. Latest date for submission of designs.

THURSDAY, OCTOBER 23

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by T. J. Clark, A.I.STRUCT.E., of the British Portland Cement Association. **7.30 p.m.**

SATURDAY, OCTOBER 25

Sunrise, 6.40 a.m. Sunset, 4.48 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the works of Messrs. Johnson, Dartford. **2 p.m.**

TUESDAY, OCTOBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "English Ironwork." By Edward Yates. **7 p.m.**

LAW REPORTS

LIGHT AND AIR DISPUTE—MANDATORY INJUNCTION GRANTED

Rogers v. *Ice-Drome (Hammersmith), Ltd.—Thames Valley Development, Ltd.* v. *Same. Chancery Division. Before Mr. Justice Clauson*

THESE two actions concerned light and air disputes at premises situate at Brook Green Road, Hammersmith. Messrs. J. and W. Rogers, trading as Rogers' Garage, at 19 and 19A Brook Green Road, and the Thames Valley Co., who owned No. 19A, of which Messrs. Rogers held a lease, sought a mandatory injunction against Ice-Drome (Hammersmith), Ltd., of 17 Brook Green Road, to remove so much of a wall and other buildings erected by them, as obstructed the access of light and air which formerly came to the premises in question, over the adjoining premises of the defendants. Messrs. Rogers also asked for an injunction restraining the defendants from causing a nuisance by noise and fumes.

Mr. Gover, K.C., in outlining the facts of the case, said that the defendants' premises had been a palais de danse, and the plaintiffs' case was that the alterations which had been made and of which complaint was made were rushed up at great speed in spite of protests and warnings as to the interference with the plaintiffs' light. Messrs. Rogers also had to complain of a continuous humming noise from the defendants' engines and smells from the oil of the engines, as well as the escape of water, which did damage to plaintiffs' premises.

The experts called in support of plaintiffs' case were Mr. E. J. Shelmerdine, architect, of Wallington, Surrey; Mr. A. S. I. Ackermann, consulting engineer, of Victoria Street, Westminster; and Mr. T. B. Daniel, architect and surveyor, also of Victoria Street.

Mr. Voisey, K.C., for defendants, said that the defendants' answer was that the claim was an exaggerated one and that there was no actionable nuisance.

The evidence called for the defence was given by Mr. E. Hand, architect and surveyor, Victoria Street, Westminster, and Mr. Percy John Waldram, the daylight illumination expert.

His lordship, in giving judgment, said by consent he had visited the plaintiffs' premises, and his experience there confirmed the opinion he had formed from the evidence given on both sides. He was satisfied and found as a fact that with regard to two of three windows in question there was such a serious diminution of light as to occasion an actionable nuisance. With regard to the noise from the defendants' engines, he had no doubt that it was of such a character as to cause a serious inconvenience in the evening and night hours which the plaintiffs were not bound tamely to submit to and have forced upon them. The plaintiffs, however, had failed to establish any nuisance on the allegation as to the escape of water, and he found that the nuisance from fumes was only occasional and temporary, and not a matter for an injunction. The defendants had urged that it would be oppressive to grant an injunction against them, but they had been warned of the risk they ran in running their building up and in spite of that they took the risk and set the plaintiffs' legal rights at defiance. Under these circumstances he felt that as to the obstruction of light he must grant a mandatory injunction to pull down so much of the defendants' building as occasioned a nuisance in respect of the two windows he had specified and an injunction restraining a nuisance for noise. The defendants must pay the costs of the action.

After hearing counsel, his lordship suspended the operation of the two injunctions for four months.

QUESTION OF NEW LEASE OR COMPENSATION

Hudd v. *Matthews. King's Bench Divisional Court. Before Justices Talbot and Finlay*

This appeal raised an interesting point as to the grant of a new lease or compensation for goodwill. The question arose on an appeal by the defendant from an order of Judge Hill-Kelly, sitting at the Bloomsbury County Court.

Mr. Slade, for the appellant, explained that the matter arose out of a claim under the Landlord and Tenant Act, 1927, by the tenant of shop premises at High Street, Camden Town. It appeared that the lease would terminate at midsummer, 1930, and the tenant accordingly served a notice upon the landlord setting up a claim for a new lease or compensation for goodwill. A Referee, to whom the matter was referred, came to the conclusion that the plaintiff, the tenant, had not established his right to compensation and that the grant of a new lease would not be reasonable. The Referee stated that the grounds of his decision were that the tenant had not proved to his satisfaction that the premises could be let by the landlord at a higher rental by reason of the goodwill which attached to them owing to the manner in which he and his predecessors in title had carried on the business, and which had attached to the premises by reason of his exertions. The county court judge had referred the matter back to the Referee, holding that the question for the Referee was whether the tenant could prove that by reason of the goodwill attaching to the premises owing to the trade carried on there by the plaintiff or his predecessors in title, the premises could be let at a higher rent for the purposes of carrying on the trade alleged, viz., that of a restaurant. Counsel submitted that the learned judge had taken an erroneous view of the law on the point in referring the matter back to the Referee.

After hearing counsel, the Court allowed the appeal, with costs, and entered judgment for the defendant.

Mr. Justice Talbot, in the course of his judgment, said the county court judge's order involved the short point whether the words in the Act, "could be let at a higher rent," did or did not import the qualification that the hypothetical letting, which was to be considered, was a letting in this case as a restaurant, viz., for the purposes for which the premises had hitherto been used. Here the tenant had to prove that he or his predecessor in title carried on a business at the premises for not less than five years, and that by reason of that, goodwill had become attached. In other words, that the premises had acquired such a business connection and reputation that they were lettable by anybody who had power to let them for more than they otherwise would. Then he had to prove that by reason of that the premises could be let at a higher rent than they would have realized had no such goodwill attached thereto. To his lordship's mind, section 4 of the Act was perfectly plain English, and it was certain that what the county court judge had done, correcting the decision of the Referee, was to introduce after the word "let" the words "as a restaurant or eating-house." His lordship added that it appeared to him that a very strong argument indeed would be necessary in order to justify the insertion of those words, and it was very difficult to believe that if Parliament meant to qualify the language in the way suggested, it would not have done so. To his mind, the only safe rule was to go by the words Parliament had used. He was of opinion that the Referee took a perfectly correct view of his duty under the statute, and under those circumstances the appeal must be allowed.

Mr. Justice Finlay concurred.

Mr. Herbert A. S. Fraser, civil engineer and contractor, of Cardiff, left £3,318 (net personalty, £1,518).

R.I.B.A. EXAMINATIONS

SURVEYORS' EXAMINATION

The R.I.B.A. statutory examination for the office of district surveyor under the London Building Acts, and the examination for the office of building surveyor under local authorities, will be held at the R.I.B.A., London, on October 15, 16 and 17, 1930.

The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is September 24.

Full particulars of the examinations and application forms can be obtained from the Secretary, R.I.B.A., 9 Conduit Street, W.1.

ARCHIBALD DAWNAY SCHOLARSHIPS

The works submitted by candidates for the R.I.B.A. (Archibald Dawnay) scholarships will be on exhibition in the R.I.B.A. Galleries, 9 Conduit Street, London, W.1, from Friday, September 19, to Tuesday, September 30, 1930, inclusive. The exhibition will be open between the hours of 10 a.m. and 7 p.m. (Saturdays, 10 a.m. and 2 p.m.).

The scholarships are intended to foster the advanced study of all forms of construction, and are tenable at the schools of architecture recognized for exemption from the examinations of the R.I.B.A.

FINAL EXAMINATION : INDIA

The R.I.B.A. Examination Board in India has arranged to hold the R.I.B.A. final examination in Bombay from October 29 to November 6, 1930. The last day for receiving applications, which should be sent to the Hon. Secretary of the R.I.B.A. Examination Board in India, 43 Apollo Street, Fort, Bombay, is October 3.

OBITUARY

WILFRED J. HARDCASTLE : 1854-1930

We regret to record the death of Mr. Wilfred John Hardcastle, F.R.I.B.A., V.D., who died suddenly at Woking, at the age of seventy-six, on August 30. He was articled to the late Mr. Alfred Waterhouse, R.A., and practised at No. 9 Conduit Street, W.1. He also held the position of chairman of the Guildford District of the South-Eastern Society of Architects. He was elected a Fellow of the Royal Institute in 1902.

COMPETITION AWARDS

Two Belfast architects, Messrs. John MacGeagh, A.R.I.B.A., and Benjamin Cowser, A.R.I.B.A., have been awarded the prize of £50 offered by the Masonic body of Enniskillen for the best design for a Masonic Hall, to be erected in that town. The competition was open to architects practising in Ireland, whether members of the Masonic Order or not, and twenty designs were submitted. The drawings entered are at present exhibited in the Enniskillen Town Hall.

TRADE NOTES

In connection with the South-East England Electricity Scheme, the Central Electricity Board has placed a contract with Messrs. W. T. Henley's Telegraph Works Co., Ltd., through Messrs. Merz and McLellan, for the supply and installation of cables for pressures of 3,000 to 33,000 volts, together with auxiliaries, in various towns in the South-East England area. This follows a contract from the same source, placed with Henley's a few months ago, for the supply and erection in the same area of a large quantity of steel-cored aluminium conductors on lattice steel towers for 33,000 volts pressure.

*

A substantial reduction in the prices of Mazda lamps came into effect on Monday, September 1. Many similar announcements have been made since the war; but the extent to which the progressive decline in lamp prices has helped to popularize the use of electricity, and thus to improve the amenities of domestic life, is not generally realized. The substantial reductions in Mazda lamps during the past ten years are extremely interesting. For example, in 1920 a 100-watt clear gasfilled lamp cost 10s. 6d., whereas to-day a Pearl Mazda lamp, better, it is claimed, in every respect than the 1920 product, can be bought for 3s. In the smaller sizes the change is not so great; a 20-watt clear vacuum lamp cost 3s. 9d. in 1920, while in 1930 a 25-watt Pearl Mazda costs only 1s. 10d. The average price per lamp for the five sizes—20, 30, 40 and 60-watt vacuum, and 100-watt gasfilled—in 1920 was approximately 5s. The average price for the five standard Pearl Mazda lamps today is 2s. 1d. Thus, although the lamps have been vastly improved during the last ten years, the reduction in the retail price is nearly 60 per cent. The new prices of Pearl Mazda lamps, all standard voltages, are as follows : 15 watts, 2s.; 25, 40 and 60 watts, 1s. 10d.; 100 watts, 3s. Clear gasfilled lamps up to 1,500 watts, Mazda motor-car bulbs, and various other types are also reduced in price.

ROYAL MAIL HOUSE

Following are the names of the general contractors, and some of the sub-contractors for Royal Mail House, illustrated on pages 367–371 of this issue :

General contractors, Trollope and Colls, Ltd., who were also responsible for the reinforced concrete, foundations, stone, fireproof construction, partitions, plumbing, plaster, joinery, stonework and gas fittings. Wood-carving, George Haughton. Sub-contractors : J. A. Lawford & Co., Ltd., dampcourses, asphalt and special roofings; the London Brick Company and Forders, Ltd., bricks; D. Colville and Sons, Ltd., structural steel; Cope & Co., tiles and tiling; Roberts, Adlard & Co., slates; Nicholls and Clarke, Ltd., glass; British Luxfer Prism Syndicate, Ltd., patent glazing; Hollis Bros. & Co., Ltd., wood-block flooring; Mumford, Bailey and Preston, Ltd., central heating, kitchen equipment, gas fitting, gas fixtures, boilers, ventilation, and water-softening plant; G. Matthews, Ltd., stoves, grates, gas fixtures, and mantels; Higgins and Griffiths, Ltd., electric light fixtures, electric wiring, electric heating, and bells; J. Bolding and Sons, Ltd., sanitary fittings; the Leyland and Birmingham Rubber Co., Ltd., stair treads; James Gibbons, Ltd., door furniture, casements, window furniture, and folding gates; Haywards, Ltd., iron staircases; Heaton, Tabb & Co., Ltd., sunblinds, furniture, and office fittings; F. de Jong & Co., Ltd., decorative plaster; William Smith, metalwork; J. Whitehead and Sons, Ltd., marble; Smith, Major and Stevens, Ltd., lifts; the Hoisting Appliance Co., Ltd., cranes; Gent & Co., clocks; Le Grand, Sutcliff and Gell, Ltd., water supply.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated, readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

24694. Baumhauer, F., and Schaefer, J. Producing refractory building materials. August 18.

25080. Garside, S. Building blocks. August 22.

SPECIFICATION PUBLISHED

333535. Ros, D. De. Preservation of natural and artificial building materials.

ANNOUNCEMENTS

Mr. W. I. Shearburn, P.A.S.I., has taken into partnership Mr. A. Hughes, architect and surveyor. The style of the firm will be Shearburn and Hughes, architects and surveyors.

Mr. Herbert A. Welch, F.R.I.B.A., of 7 New Square, Lincoln's Inn, W.C.2, has been joined by Messrs. N. F. Cachemaille-Day, A.R.I.B.A., and Felix J. Lander, A.R.I.B.A., of 5 Verulam Buildings, Gray's Inn, W.C.1. The firm will practise at 7 New Square under the title of Welch, Cachemaille-Day and Lander.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_1	Atherstone	Mid. Counties	1 5½	1 1
B_1	Aylesbury ..	S. Counties	1 3½	11½
B	BANBURY	S. Counties	1 4	1 0
B	Bangor ..	N.W. Counties	1 4½	1 0½
A	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7	1 2½
A_1	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B	Dorchester	S.W. Counties	1 3½	11½
A	Driffield ..	Yorks	1 5½	1 1
A	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
*A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kiddermin-ster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Lough-borough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLES-FIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middles-brough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 1
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENS-FERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A_1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKE-FIELD	Yorkshire	1 7	1 2½
A_1	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Welling-borough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolver-hampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1½
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* NAVVY, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* BRICKLAYER, 1*s.* 8½*d. per hour;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9¼ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1*s.* 8½*d. per hour;* DO. *fixer,* 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour;* TILER, 1*s.* 8½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

	Med. Grey			Med. Green		
Portmadoc Ladies				£14	0	0
Countess				23	0	0
Duchess				32	10	0
Old Delabole						
24 in. × 12 in.	£42	11	3	£45	1	0
20 in. × 10 in.	31	4	3	33	0	6
16 in. × 10 in.	20	18	0	22	4	9
14 in. × 8 in.	12	1	0	12	16	3

Green Randoms, per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey			Med. Green		
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, ¾ in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour;* JOINER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33½ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour ;* MATE, *do.,* 1*s.* 3½*d. per hour ;* ERECTOR, 1*s.* 8½*d. per hour ;* FITTER, 1*s.* 8¾*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour ;* MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. 4 *in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. 3 *in., per yd.*	0	1	8
DO. 4 *in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. 4 *in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ¾ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see " Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 *oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. 4 *ft. sup.* ,,	0	2	3
DO. 6 *ft. sup.* ,,	0	2	6
DO. 20 *ft. sup.* ,,	0	3	1
DO. 45 *ft. sup.* ,,	0	3	3
DO. 65 *ft. sup.* ,,	0	3	5
DO. 100 *ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. ½ *in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* FRENCH POLISHER, 1*s.* 8½*d. per hour ;* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall..	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	9
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain " diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon												
Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak												
1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak												
1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:

A WEEKLY SERIES

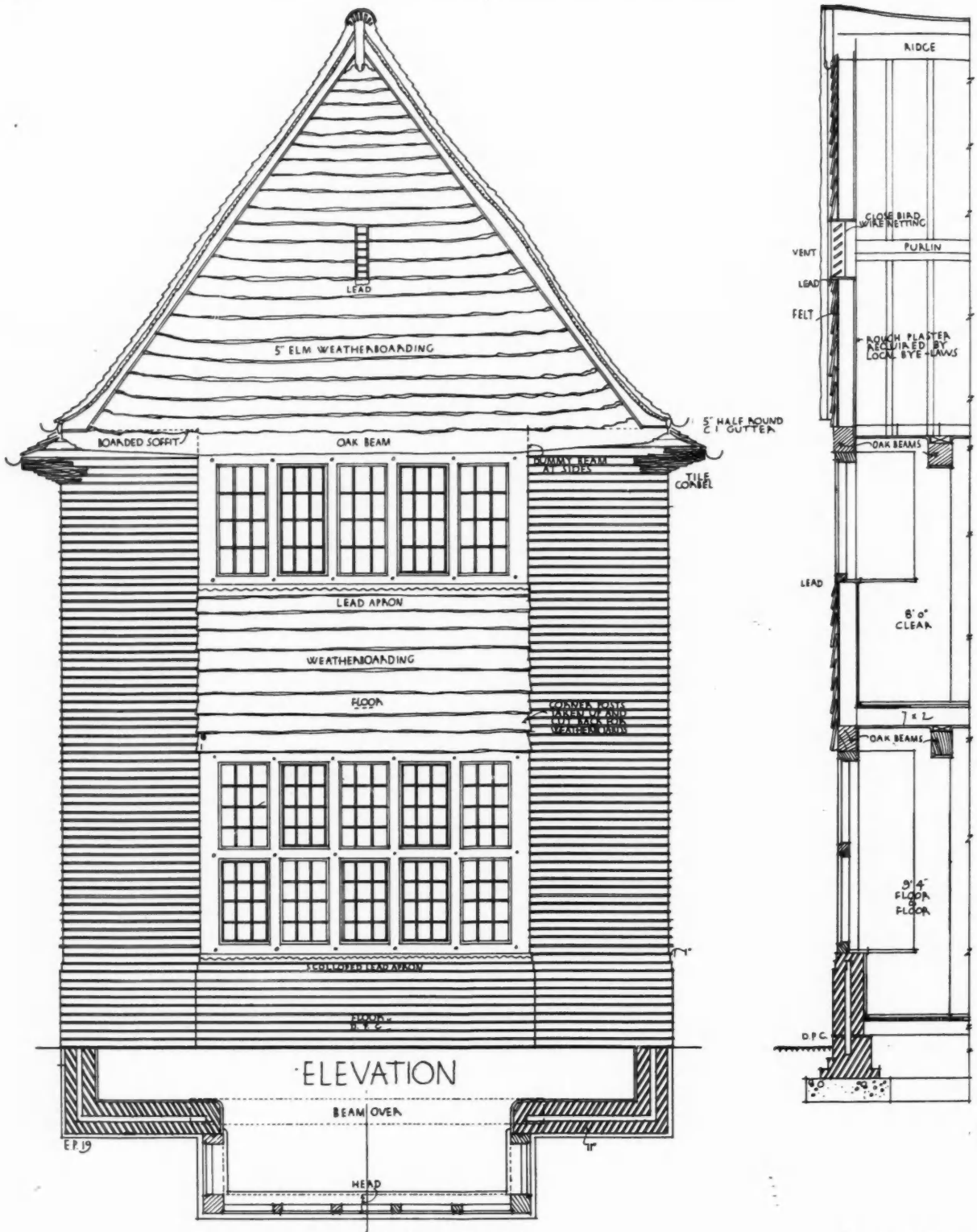


GABLE AND BAY WINDOW,
HOUSE AT KNOCKHOLT, KENT
DESIGNED BY P. D. HEPWORTH

THE weatherboarding is of elm, sawn from 1-inch boards. It is backed with inodorous felt, and nailed to studding carried on an oak beam, which is supported in the traditional manner by the corner posts of the bay window. These posts are continuous from the ground-floor cill. They are cut back between the heads of the ground-floor windows and the cills of those on the first floor to allow of the boarding being fixed to them without undue projection. The window framing, posts, heads and transoms are of oak. The casements are of steel, divided into small panes with lead cames. The lead aprons under the oak cills have been cut with a scolloped edge to give added interest. To meet the requirements of the local bylaws the internal face of the studding to the gable has been rough plastered.

Close inspection of the drawing, reproduced overleaf, reveals the existence of a number of subtleties, designed to achieve in execution that softness of outline essential to this style of "formal informality."

The drawing may be read with an architect's scale.



THE PLAN at the FIRST FLOOR

SECTION

KNOCKHOLT

QUARTER SCALE DETAILS OF BAY WINDOW & GABLE

P. D. HEPWORTH ARCHITECT



WEDNESDAY, SEPTEMBER 17, 1930

THE FIGHT AGAINST NOISE

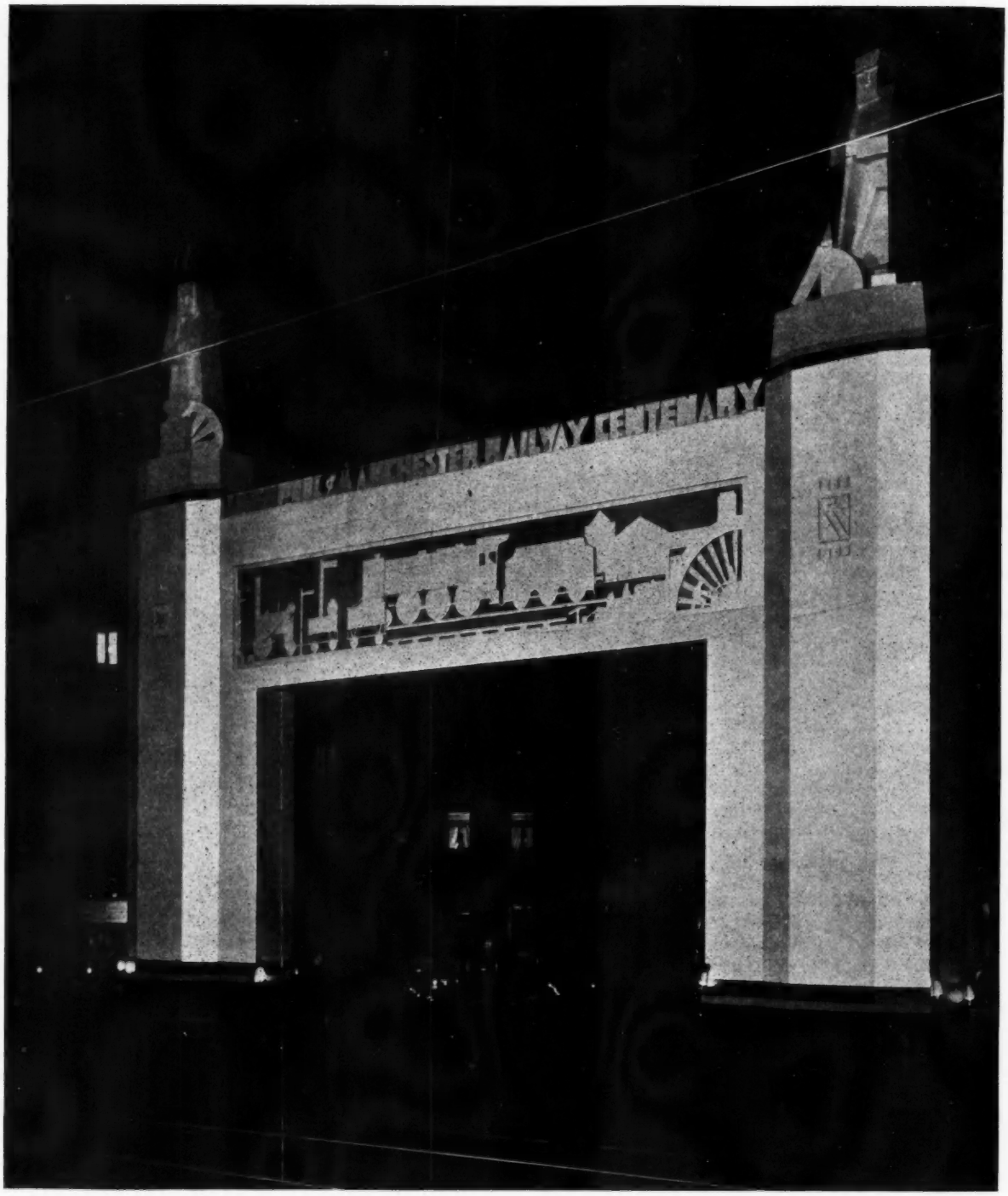
" Becoming accustomed to noise is, in reality, becoming deaf."

—THOMAS A. EDISON.

THE problem of noise in the modern city is one to which this JOURNAL has devoted considerable space in the past. Noise means fatigue and lowered efficiency on every side. Most people nowadays realize the enormous loss due to impairment of working capacity and efficiency in city and industrial life; more particularly as to men of affairs, principals and executives, whose capacity for clear thinking, hard work and energetic action is perceptibly weakened by the incessant if unconscious strain upon their nervous system, caused by the din of typewriters and adding machines, and by the babel of noise penetrating into their offices from outside. Even in Government offices, in so comparatively quiet a street as Whitehall, it is impossible to hold a conference in the front rooms with the windows open and the health of the inmates suffers accordingly. Latterly *The British Medical Journal* has had some striking things to say on the matter. " Though the man whose house abuts on the railway will admit that he no longer notices the passing of a train, there can be little doubt that noise has a harmful effect on the mind, even of those who appear to be indifferent to it. The effort of concentration is considerably increased in noisy surroundings, and it has been repeatedly demonstrated that existing neurasthenia is aggravated by noise and improved by a quiet environment. The effects are inevitably serious on young children and infants, whose nervous systems are insufficiently developed to withstand a prolonged strain; the child who has slept in the midst of uproar will awake listless and tired, and if the conditions persist his growth will suffer." These are serious statements, and since they come from one of our foremost organs of medical opinion it is impossible for us to take them lightly.

A telling fact is that local authorities are awakening to the danger. The annual report of the Willesden Urban District Council gives the results of experiments conducted under its auspices. We are told that noise raises the blood pressure in the adult, and that a degree of noise insufficient to waken a sleeping person will cause the muscles to contract and to remain tense for as long as thirty minutes before they relax. Deafness, dizziness, and headache are the lot of those who earn their livelihood by boiler-making or cotton-weaving, and it has been estimated that for normal persons it requires nineteen per cent. more energy to perform duties in noisy surroundings than to perform the same duties in a quiet environment; the strain on those whose mental or physical health is not normal can be imagined. Into the Middlesex County Council Bill, which is to come before Parliament next session, a clause has been introduced to give the local authorities the same powers with reference to noise that they have with reference to nuisance under the Public Health Act. This will apply to excessive, unreasonable, or unnecessary noise, wherever it is injurious to health, or where it is capable of being mitigated, having regard to all the circumstances, such as cost.

Architects have a duty to fulfil in this matter of noise, for both in the planning and in the construction of new buildings it is possible for them to combat the evil to a far greater extent than has hitherto been thought practicable. Office and apartment buildings and even dwelling-houses can be so planned that those rooms where noise is most to be shunned receive a minimum of outside noises and are not contiguous to any internal source of noise. In the construction of their buildings architects have a vast range of sound - absorbing, and therefore quiet - producing, materials from which to choose. This is the side of their task which is so splendidly illustrated in a special section included in the Building Trades Exhibition, which opens at Olympia today. Assembled under the able direction of Mr. A. Trystan Edwards, the devices employed in the Silent House are worth very special study indeed. The sources of noise in modern buildings are not yet sufficiently studied before the building is put up, and sound-insulation too often takes the form of remedial action applied when the defects have thrust themselves on the notice of the occupiers. The place to tackle the problem is the architect's drawing-board, and the means wherewith to do it are here displayed for all to see.



STREET DECORATIONS IN LIVERPOOL

A photograph of an arch forming part of the street decorations in Liverpool this week on the occasion of the Railway Centenary Celebrations. It forms a focal point in the irregularly-shaped Place *in front of the entrance to Lime Street station. The background of the panels is painted turquoise and the caps and bases of the pylons vermilion, turquoise and black, whilst the rest of the arch is painted aluminium. It was designed by E. M. Keith Ellerton, of the staff of the Liverpool School of Architecture, and made by W. R. Burden.*

NEWS & TOPICS

HOW TO DECORATE THE STREETS

STREET decorations, even more than exhibition buildings, are ephemeral things that enliven our drab surroundings for a week or two and then vanish. They provide, or rather should provide, a marvellous opportunity for daring experiment in new forms and brilliant colouring. But how badly they are usually done!—in this country at any rate. I suppose when municipalities decide to don festive attire they call in firms of bazaar-fitters and people like that, who submit designs and estimates at so much a mile. And then a committee of butchers and bakers and undertakers, assisted by the Engineer and Surveyor, selects the one that appears to give the greatest show for the money, and up go the tawdry white-and-gilt pylons, the cardboard shields and trophies and the tired bunting.

★

In Liverpool they seem to do these things better than that. They hold a competition for each of the streets to be decorated, and the designs are assessed by a jury of two architects and a sculptor. In the competition for the street decorations in connection with the Railway Centenary Celebrations this week, all the eight prize-winners were found, when the awards had been made, to be either students or members of the staff of the Liverpool School of Architecture (Professor Reilly, " Naturally ! ").

RECONSTRUCTION OF SLOANE SQUARE

In the days before traffic became a bugbear Sloane Square used to be a tree-planted archipelago of refuges, surrounded by a confusion of roadways. It had even then a certain Continental air on account of its nice bareness, its lean plane trees, and its background of inoffensive architecture. When traffic was made to circulate about, and the channels dried up as it were, the newly-formed island presented a sorry appearance, half-paved, half-broken earth and old curbstones.

★

So it remained for long, while the Council debated what should be done. Now one is heartened to find that they are to do exactly the right thing. New trees are to be planted so as to make a sort of nave of the open space, at the head of which the war memorial, moved from its position on one of the old islands, will be given a much more significant position. The whole of the remaining space is to be paved in blue and brown York stone, and it is difficult to see how anyone could very well do the job better.

TREASURES OF THE DUNCANNON

There are very few mural decorations in London that one would confidently take an interested foreigner to view. The more is the pity that one of the most recent, and unquestionably the best decoration of its kind should be about to be demolished along with the fine Regency buildings that surround it. This mural decoration is in an upper bar of the Duncannon Hotel, and when four years ago I was taken there by a painter-friend I could hardly swallow my drink for gazing at what were surely the liveliest, wittiest and most rollicking illustrations of Pickwick it had ever been my good fortune to see. Many times since then have I leant against the same counter and come away full of fear that some calamity might befall the murals—and now the blow has fallen.

★

Mr. A. R. Thompson who painted them is both deaf and dumb, yet these obvious disadvantages seem to have given an added quality to the expression of those things he has been denied. I have not the slightest doubt that this brilliant piece of invention, though it is not old or venerable, is more worth preserving than many another relic for which money is forthcoming. Unfortunately the paintings were mainly done on paper pasted to the plaster wall and removal will be a costly matter, but for all that it would be more than worth the doing because there is nobody can do them again for us, and I believe that our loss would be considerable.

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In the hopes that Sir Herbert Baker, who is designing the new buildings, may be able to do what nobody else seems disposed to do, I put forward a very earnest plea for their immediate removal to some place of safety until their future use may be given the consideration it deserves.

THE CRUX OF THE SLUM PROBLEM

The question of housing those people of the slums who can never afford the better housing provided in tenement dwellings or estate cottages is, as Sir John Mann says, the crux of the slum clearance problem. The majority of slum dwellers are decent, hard-working people, doing their best to be clean and orderly in conditions that leave very little chance of success. For these and for the lowest, the " submerged " type, a new class of dwelling is required. Sir John Mann suggests that a lower standard of housing is necessary if these classes are to be affected in any way by re-housing—simpler accommodation, less plumbing and much more economical building.

★

It is with difficulty that one envisages a lowering of the standards reached with so much effort, and yet it is true that little has been done for the very lowest classes, who cost the community more per head through the medium of police and public health administration than their more respectable neighbours. It is maintained that much may be done by reconditioning and converting large houses into several smaller ones, but more still by compelling the owners of existing slums to put them in order, and thereafter seeing that they are kept in good order.

CLEARING SCOTLAND'S SLUMS

The new Housing Act for Scotland has now become operative, and will function very much after the manner of its English progenitor. Unit grants replace the percentage grants of the old Acts, and the new system is in such a form as to be a definite inducement to local authorities to provide a larger type of house at a moderate rent. Slum clearance is its main intention, subdivided in detail into *clearance* areas where all the houses must be demolished, *improvement* areas where some houses may be improved and some only demolished, and the repair and improvement or demolition and re-erection of individual houses.

★

The definition of areas coming within the scope of the Act is carefully laid down, but with wide powers of purchase of property surrounding and adjoining, so that a clearance may be effective over a wider area than would

be otherwise possible. The rehousing of dispossessed occupants of areas to be cleared is, of course, one of the major problems of slum clearance, and is dealt with as carefully as it deserves, especial point being made of the need for adequate alternative accommodation for dispossessed tenants before ever a demolition is started upon. On the whole, the Act seems simple and workmanlike in its machinery, with financial clauses that are inducements to local authorities to take up the long-neglected task of thorough slum clearance.

VENTILATION, SANITATION—

It is humiliating to reflect that it is only a matter of days since modern methods of ventilation have been allowed to reinforce modern methods of sanitation in this country; and that we who have so long lagged behind in regard to the former were once pioneers in the latter. The absurd old L.C.C. building bylaw just abrogated by the Ministry of Health, which insisted on the external ventilation of all bathrooms and w.c.s, recently enabled a friend of mine to renew his lease on exceptionally favourable terms. As a tenant in one of the oldest *ad hoc* blocks of flats in London—notable for having been designed by a qualified, and even an eminent, architect—he was informed that an extension of his lease would be accompanied by an approximately 100 per cent. advance in rent. Being a rather subtle fellow, he drew the landlord's attention to the fact that the lavatory in his flat was ventilated not by an outside window but by one opening directly on to the main staircase. A hint that he might be prepared to refrain from drawing the L.C.C.'s attention to this flagrant structural illegality resulted in his securing a fresh fourteen years' lease with only a 25 per cent. increase of rental.

*

In America, thanks to the perfection of suction and forced-draft ventilation, it has long been the rule to place a bathroom and a private closet on either side of the space between the double doors of every hotel bedroom. This has caused a progressive standardization of sanitary appliances, with a corresponding reduction in the price of plumbing and fixtures. The new "Reichsbahn" hotels at Stuttgart and Beuthen, which may be considered the last word in hotel equipment and efficiency, have a bath and a syphon-flush closet attached to every bedroom, single or double.

—AND STAGNATION

Such sybaritic luxuries—for which (L.M.S. and L.N.E. Railways please note) no extra charge is made in the charmingly decorated and rationally furnished hotels managed by the German State Railway Company—are beyond the wildest dreams of the stay-at-home English traveller, who knowing that the quest of a bathroom entails a pilgrimage through draughty corridors, usually asks no more than a couple of taps. Most London terminus hotels—to say nothing of railway-owned hotels in the provinces—still impose the most scandalously primitive means of ablution on their patrons. Here, *faute de mieux*, the rusty brown hot-water can, so familiar to the Victorians, has to be rung for and patiently awaited by visitors unreasonable enough not to be content with cold.

*

The pious preservation of such curious archaicisms as ewers, hand-basins, slop-pails, hip-baths and tin jugs in a bepinnacled Gothic edifice that might be mentioned is doubtless in deference to the lifelong habits of the company's octogenarian directors. The management is apparently blissfully unaware that travellers from the north are apt to resent a display of crockery and hardware which ought by rights to have long since found a place in some Museum of Hygiene; and make a point of shunning this conveniently situated but inconveniently superannuated hotel in consequence. On the Continent the bedroom without fixed basins and running water has become extinct in even the humblest inns of the sleepiest little market towns. Is it too much to hope that in another decade it may also have disappeared from the principal London hotels? The repeal of this preposterous and vicious bylaw should encourage English hotel proprietors and householders to begin to think of a bathroom and a w.c. as no less integral parts of a bedroom than a built-in wardrobe and fireplace.

WHERE ARE MY SLAVES?

In *Towards Civilization* (Longmans, 12s. 6d.) Dr. Beard, the American publicist, and his collaborators, have boosted the claims of the engineers and mechanics to be the great benefactors, spiritual as well as temporal, of the human race, and cite Edison as a name that should appear in the Kalendar of Saints. It seems that the amount of mechanical power at the disposal of each person in U.S.A. equals a hundred slaves; in Britain, I suppose, about seventy slaves. I told a married lady this, only to find she would give all her electric buttons, her stainless knives and whistling kettles, for one human cook and one flesh-and-blood housemaid, so that she herself could spare time to mend the children's manners and undies.

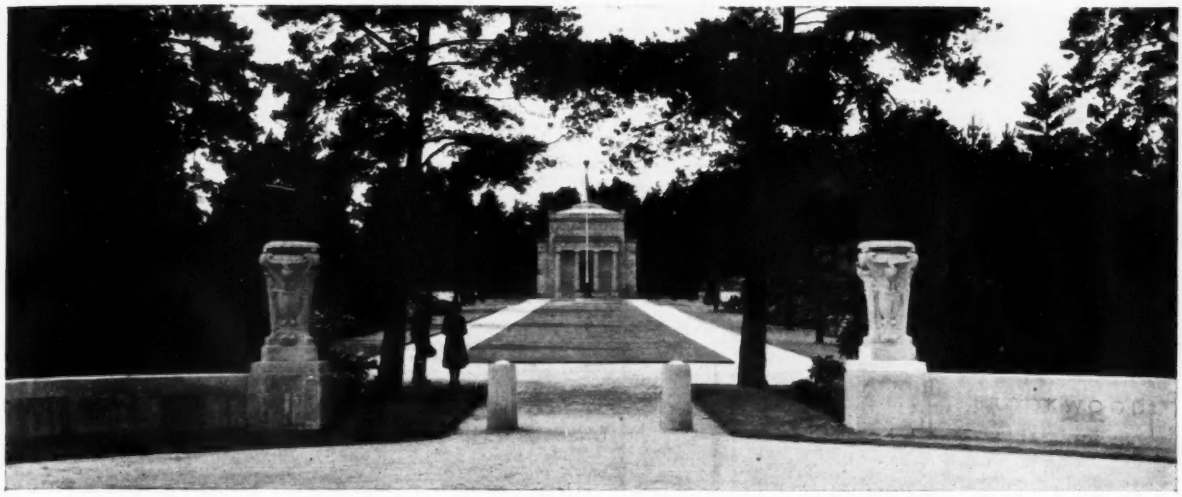
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The boycott of domestic service has hit architects pretty hard. Where your nobleman or merchant used to roll in and order a mansion of thirty rooms, his descendant suggests a three-bedroomed house and a garage. And where are the religious buildings in response to the spiritual uplift of machinery? Perhaps the parish priest will ask for plans of a bare mission church to serve the New Poor in the Wilderness, and mention the reward of half-fees, and for himself prognosticate an Easter offering of seven shillings and tenpence and not enough buttons for a pair of braces.

ASTRAGAL

More Official Architecture

"I don't want to be accused of treachery, but I give notice that I am going to make inquiries through the Minister of Health as to why these plans were approved," said Councillor Conlan, at a meeting of the Barnes Council on Tuesday last. He was referring to the plans of a new housing scheme (a block of flats) in Mortlake High Street, and Councillor Conlan, who is an architect by profession, had previously drawn attention to the fact that the rooms would lack sunlight as the living-room windows looked north, while the larders faced south. This is an extract from *The West London Observer* of last Saturday. The flats referred to have been "designed" by the engineer to the Council, despite Mr. Conlan's efforts to persuade the Barnes Council to commission a qualified architect. From its inception he has opposed the scheme on the grounds that the planning was extremely raw and lacked skill. The remainder of the Council, however, were of the opinion that their engineer was quite capable of doing the work. The lay Press seems to extend its sympathy to Councillor Conlan, who is the "baby" member in point of years.



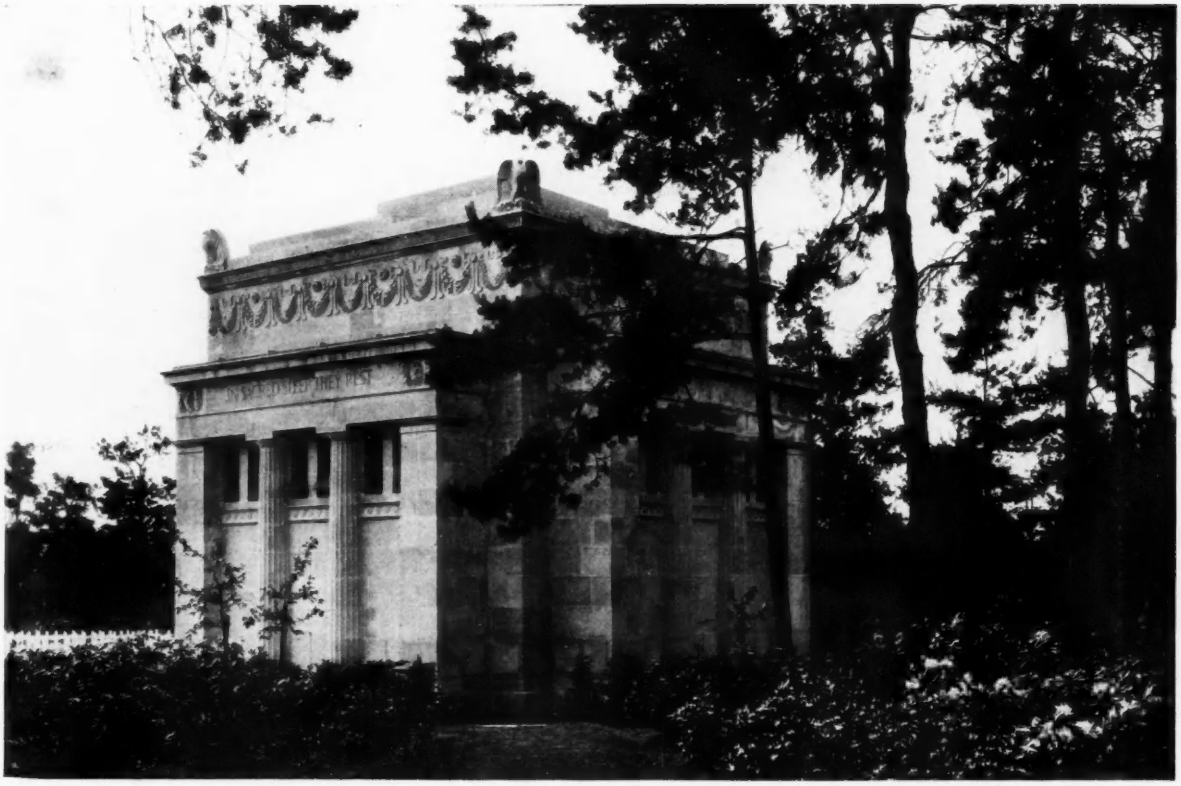
The view looking north from the entrance to the American Military Cemetery.

THE AMERICAN MEMORIAL CHAPEL, BROOKWOOD

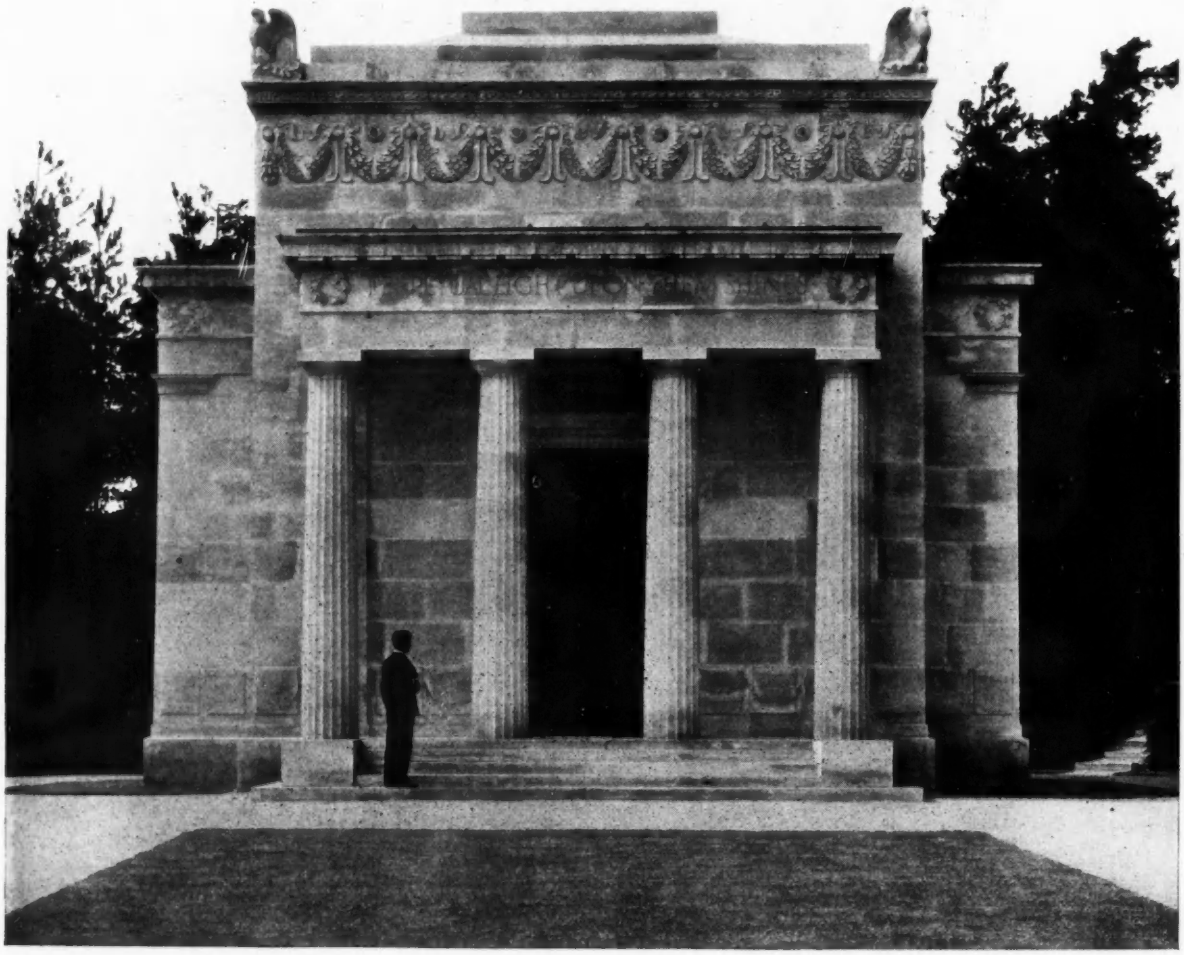
DESIGNED BY EGERTON SWARTWOUT

THIS chapel has recently been completed from the designs of Mr. Egerton Swartwout, F.A.I.A., of New York, the well-known architect of the Elks Memorial, Chicago, and other monumental buildings in the United States. The chapel is one of a number of war memorials erected by the American Government, which set up the American Battle Monuments Commission, of which General John J. Pershing is chairman and Major X. H. Price, C.E., U.S.A., is secretary, to organize, direct and supervise the various undertakings.

The European office of the Commission is in Paris, and the memorials take the form of chapels or commemorative monuments in six cemeteries in France, and one in Belgium, where American soldiers are buried; and nine monuments on the battlefields of France and Belgium where American armies fought, in addition to



A view from the north-east, showing how effectively the chapel is set in its surroundings of Scotch firs.



The American Memorial Chapel, Brookwood.]

The south elevation, showing the entrance, which has bronze doors.

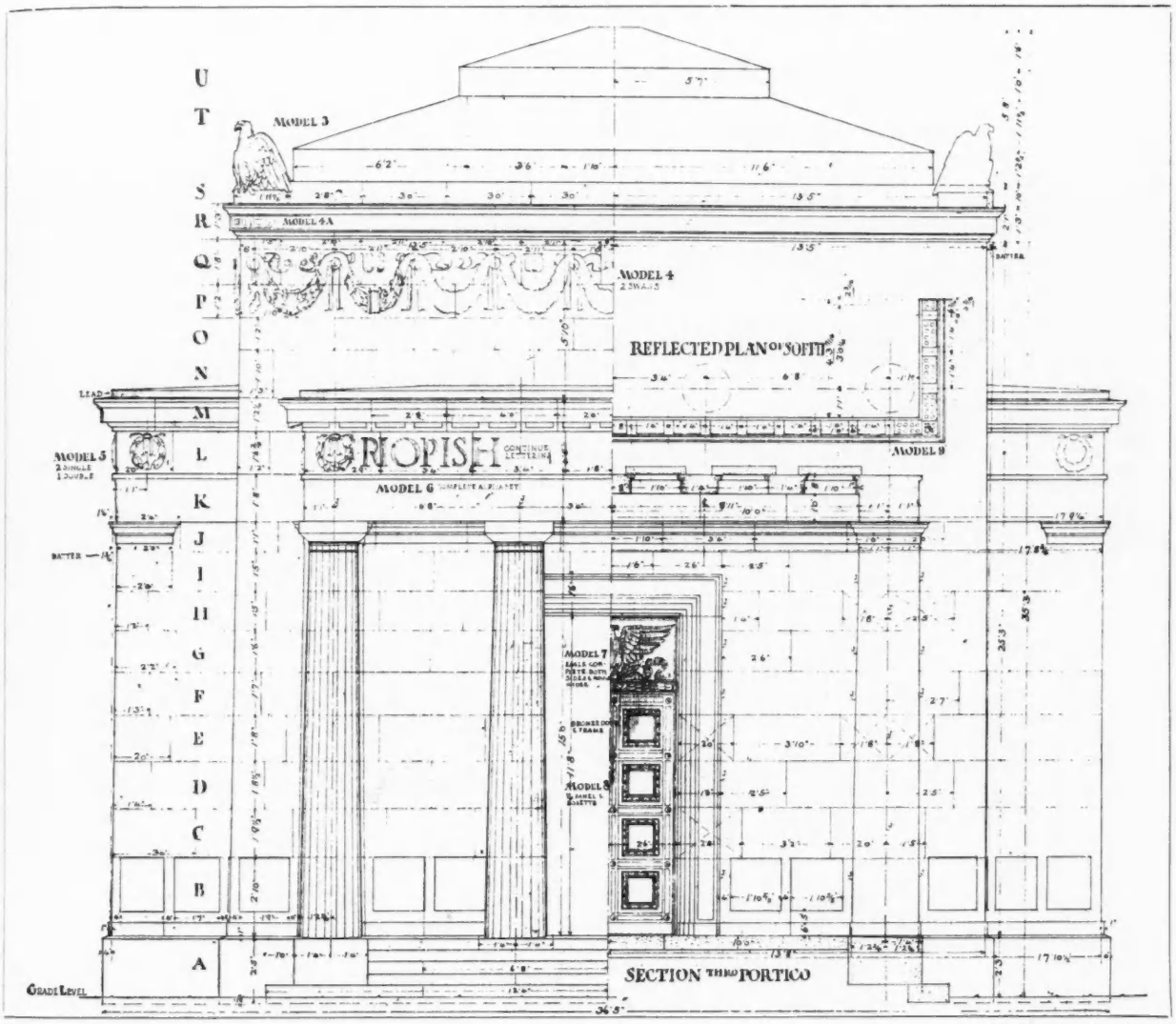
four monuments at places where the American navy had bases during the war.

These memorials are the designs of eminent American architects who have been chosen to commemorate their country's achievements and sacrifices in the great European war of 1914–18, the most bloody conflict America has known since her own Civil War; and Mr. Egerton Swartwout, the designer of the Brookwood Memorial Chapel, here illustrated by photographs supplied by the American Battle Monuments Commission and drawings lent by the architect, is the architect also of the Battle Monument now being erected at Montsec (Meuse), France.

The Brookwood Memorial Chapel is built at the north end of the American Cemetery, which lies at the west of the Necropolis, and next to the British Military Cemetery. It commemorates American soldiers and sailors who lost their lives in Great Britain, or in its surrounding waters, during the war.

Four hundred and fifty-three graves, each marked by a white marble cross of special design, occupy the arms of the cross to which the layout of the cemetery approximates; the chapel standing at the head, the flagpole at the centre of intersection, and the entrance at the foot. The names of approximately 1,060 American soldiers and sailors, who were lost or buried at sea and have no known graves, will be inscribed in panels on the inside walls of the chapel. The bodies of those buried in the cemetery were brought thither after the Armistice from various parts of England, Scotland and Ireland, and lie in ground the freehold of which vests in the Government of the United States.

The photograph giving the general view shows the entrance to the cemetery from the approach road on the south. The layout so avails itself of existing plantations that nothing is seen until the entrance is reached and the chapel and its setting are fully displayed as here shown. The crosses marking the graves, which may be discerned in the photograph on each side of the near approach to the chapel, do not obtrude upon the memorial which the chapel is, in the main, intended to constitute. The building, which is externally of Portland stone, is set back into a plantation of Scotch firs faced with yew, which also partly encloses it upon the east and west; and in being able so to contrive and to arrange the approach and chief elevation on the south, the architect has given his building an ideal setting. The plantations of evergreen shrubs flanking and enclosing the approach



[*By Egerton Swartwout.*

The architect's detail drawing of the south elevation illustrated, photographically, on the facing page.

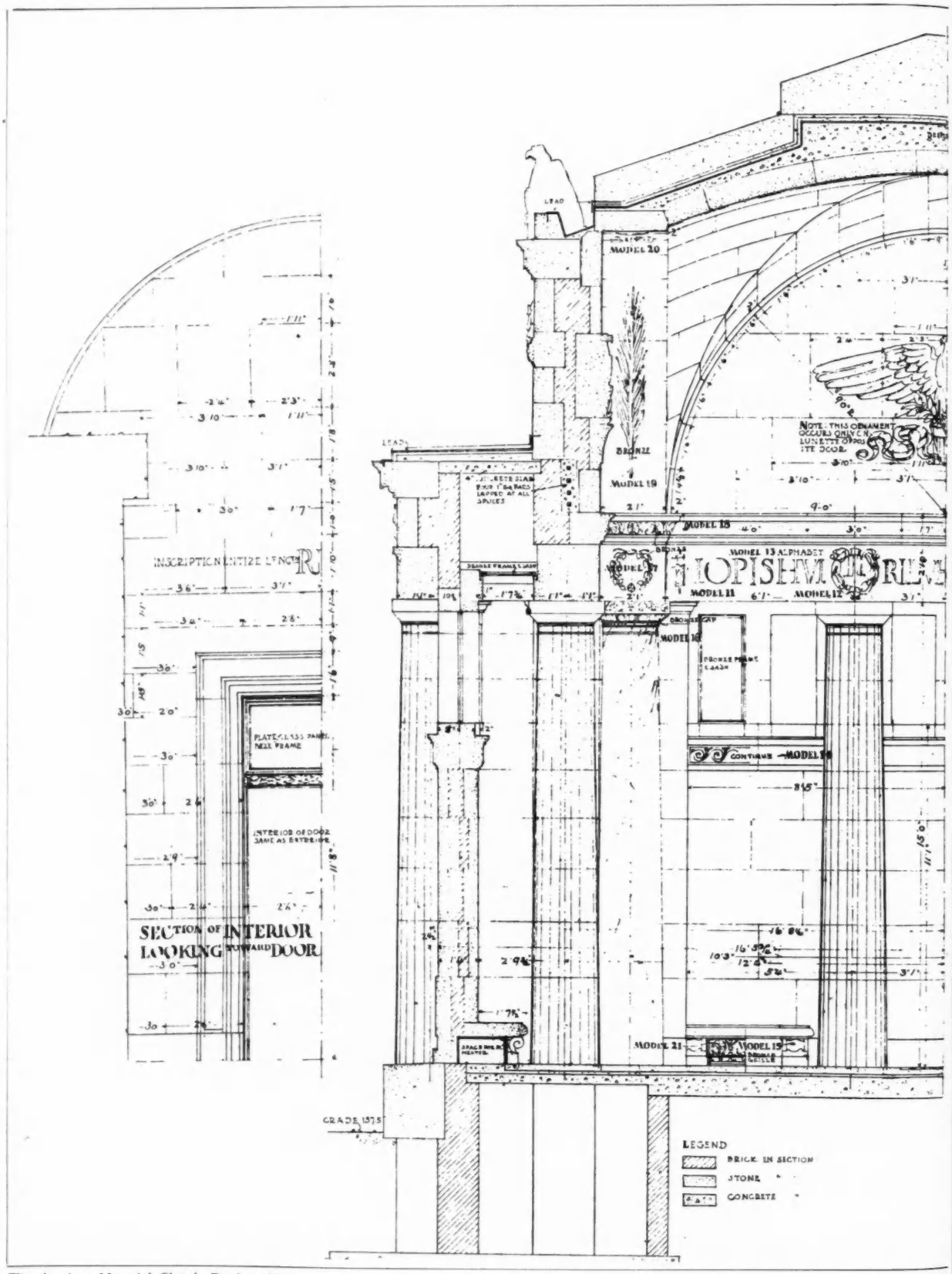
at its southern end, emphasize the domination of the chapel and give sanctity to the orderly phalanx of white crosses to right and left when a nearer approach to the chapel brings them into view. Skilled designers will also note the gain in scale and effect of spaciousness obtained by the displacing of a central approach by a lawn with paths on each side of it.

The design shows the scholarship untrammelled by stylistic convention, which we in England have learnt to recognize as a characteristic of the work of the leading American architects, who, we are not to forget, are by tradition, if not in fact, the heirs of Les Beaux Arts, Paris. The stone, Portland without and Ham Hill within, and the craft of building, are British; but with that qualification the chapel and cemetery are American—the design, the models of carving and lettering, bronze doors, caps and applied decorations, and the base and finial of the flag-mast came, all of them, from " the other side." The stained-glass windows, however, did not come from America, but were designed and made by Mr. Reginald Hallward, who also carried out the decoration of the memorial altar and of the cross above. The photograph does not, unfortunately, show up the windows, the design of which embodies regimental insignia of the American Army.

The warm colour and variegations of tone and texture of the carefully-chosen Ham Hill stone which lines the interior, is shown up by the columns of uniform, ruddy, chocolate marble, sparsely traced over with thin white veinings, and by the bronze caps, and applied wreaths, palm swags and architrave enrichment, which are gilded.

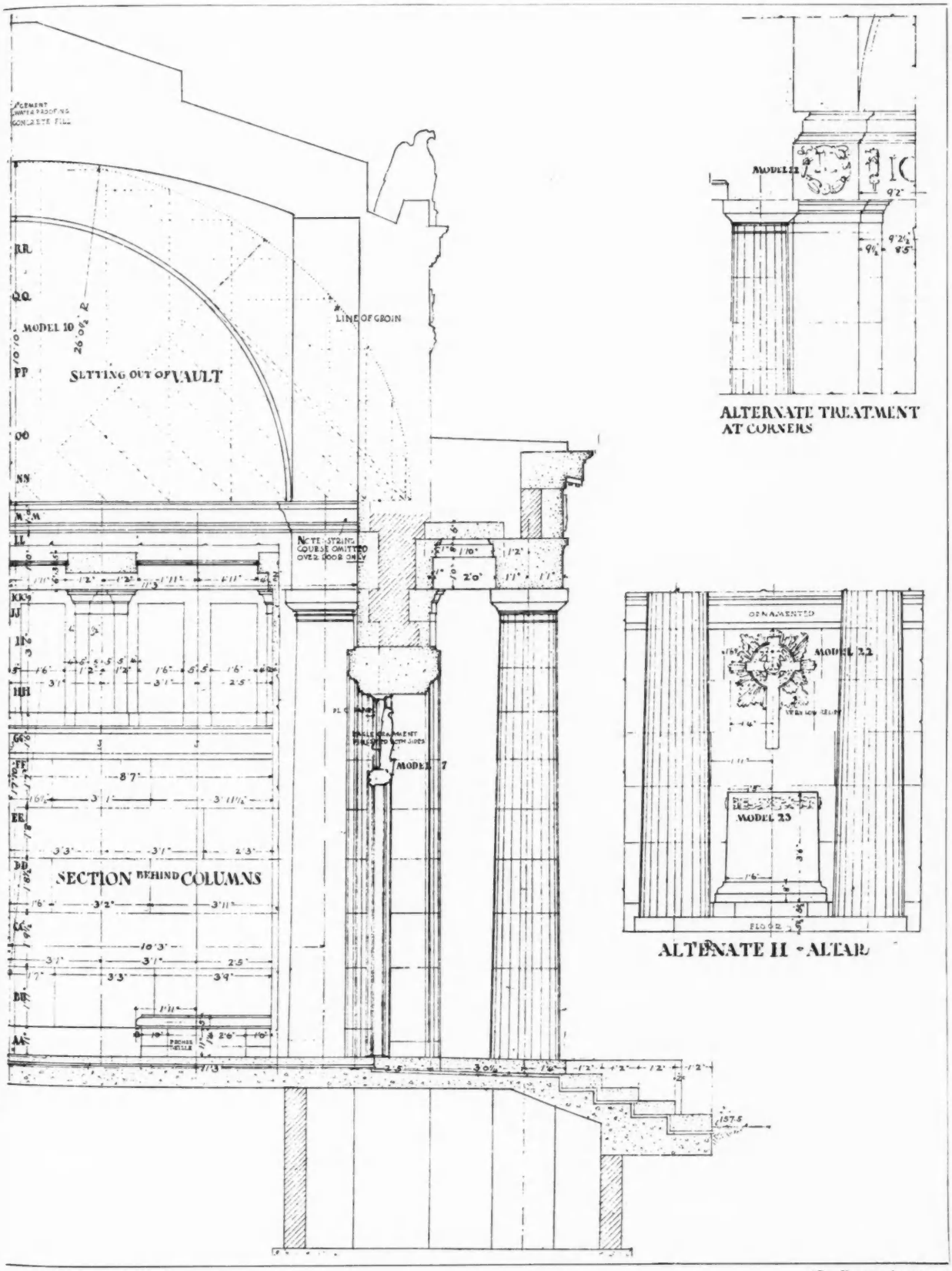
Artificial lighting is by flood-lights, fixed above the lay-lights in the ceilings of the window bays. These lay-lights are of semi-opaque glass, tinted so that its difference from the general colour of the walling is not conspicuous. The building can be slightly warmed, when necessary, by electric radiators fixed below the stone seats, two examples of which may be seen in the photograph of the interior.

The drawings reproduced in these pages are characteristic of American practice, which definitely and completely, so far as the words may be used in such a connection, fix all parts and details of the whole building before the contract is let. The importance of this will be realized by architects when it is remembered that in America the quantity surveyor is unknown; but the exactness with which a building may so be completed in the contract drawings will not be realized by any



The American Memorial Chapel, Brookwood.]

The architect's detail drawings of the section and interior elevation, facing the entrance—



[*By Egerton Swartwout.*

—and of the section through the entrance and side elevation, typify American practice.

who are accustomed, as are English architects, to leave the precise form and dimensions of the details to be decided as the building proceeds.

These drawings, with specifications of separate trades, are duplicated and supplied to various contractors through the intermediary of a general or organizing contractor. Each of these contractors makes his own measurements and prepares his own estimates and tenders, which are embodied in the tender, or "bid" as they call it, submitted by the general contractor to the architect. It will be realized that as the estimating is undertaken by specialists in each particular trade or craft, who have methods of their own of determining what the work will cost them, the science of preparing the elaborate bills of quantities with which we are familiar in England is not called for in America; and the confusion and waste, which our profession of quantity surveying was set up to put an end to here, does not there arise.

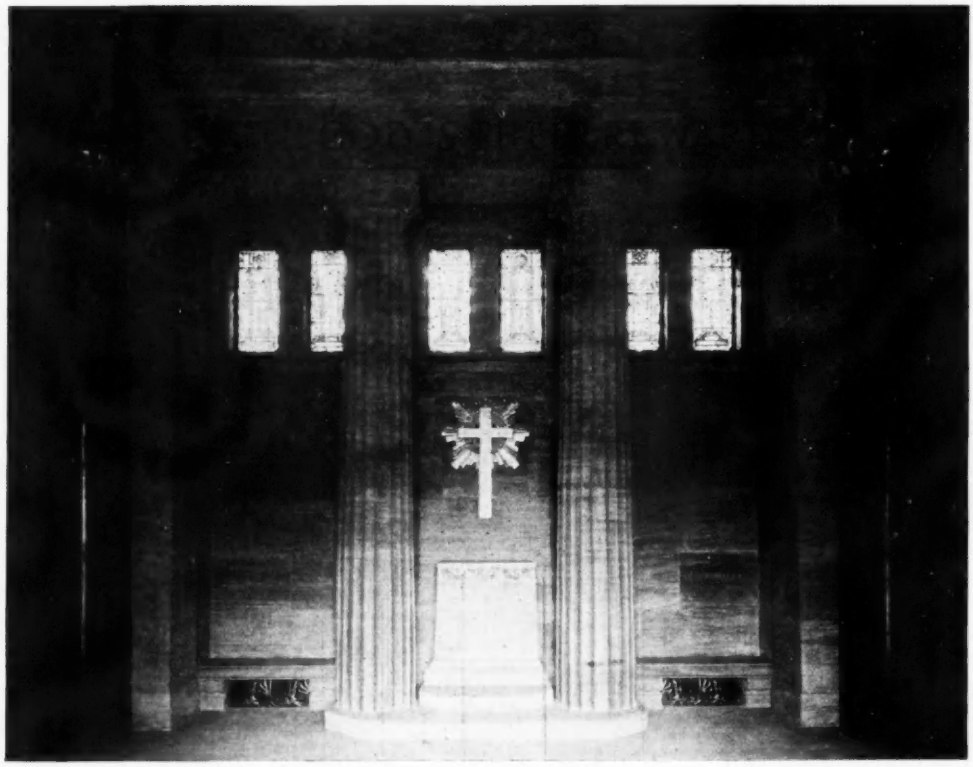
Which system is calculated to give the best results in the achievements of architecture it is difficult to say: an architect who is compelled clearly to visualize and determine all parts of his design before the building is embarked upon is likely to give a higher concentration to the perfecting of his conception than one who can avoid facing indecision and escape solving difficulties, by putting the problem aside for a later day; but, on the other hand, the designer who can see his design taking shape before his eyes will be able to exercise a more mature and a better considered judgment in determining its parts than one who is by circumstances strongly discouraged from revising his original conceptions.

A combination of the two systems, when that is possible, would probably give the best results: a strict exactness in all details of the original design as the American usage requires, and a perfect freedom to reconsider and amend, such as practitioners of architecture in England enjoy.

The builders were Messrs. Holloway Bros.; and the work was carried out under the direction of Mr. H. B. Creswell, F.R.I.B.A., who represented the architect in England.



The bronze entrance doors, with American eagle above.



The American Memorial Chapel, Brookwood.] [*By Egerton Swartwout.*

The interior, showing the altar, and the stained-glass windows embodying insignia of American corps.



ENGLISH PRECEDENT No. 133

BARN, DOULTING, SOMERSET

Throughout the length and breadth of the West Country the great barns store its garnered wealth. Built, each with materials native of its place, they seem to be a part and parcel of the soil to which they owe their being. Like that illustrated above, they were built, not with stint of time nor of materials, but were well built, and built to last.

The roof principals of these barns seem to have been spaced, one from the other, with the measure which is common in most old rural buildings —the rod, pole, or perch of the multiplication table. It was indeed the most common lineal measure in country use.

The form of the roof truss most often seen seems to be derived from the early type of timber roof construction by "crucks." Each pair of "crucks," curved in outline, rested on the ground at their lower ends and met at the apex of the roof, the building so formed being, virtually, all roof and no walls.

The principal rafters of these barn roofs are generally curved at their bases, which rest on independent "wall plates" or seatings placed about a third of the way down the wall. The upper part of the walls are thus freed from much of the weight of the roof and their tendency to spread under its pressure is proportionately diminished. The high "collar" beam gives an uninterrupted space for storage below it, and in some cases supports above it a "king post" or two diagonal struts.

These ancient barns are memorials of a past age; they are historic evidence of the life of an historic people. Let us therefore preserve our barns. —[G. G.]

D

LETTERS FROM READERS

Guildford Cathedral Competition

SIR,—An innocent stone may start an avalanche, and yet desire peevishly to maintain its identity, and to contemplate the wreck it has caused.

Your correspondent "Cathedral" gave me hope, but the authorities pursue their way and valuable time is passing. May I point out certain considerations :

1 : That no one has confused the issue, despite Mr. Wightwick's subtle letter. Such were impossible with such an issue. The promoters do not know what they want, and have unwittingly said so.

2 : That the present "conditions" are materially modified from the original advertisement, and the position for the younger men is worse. As a prospective suppliant, I have not been engaged in the design of cathedrals, but in carrying on architectural practice, which has left me no time for such exercise. If not thereby disqualified, I should be prepared to risk submitting an esquisse, if there were proper evidence that it would not be ruled out *a priori* by some gentleman who is to give the money or perform the ritual, and who is offended by this, that, or the other implication in my plan. I have certain views on the right expression for this building which are evidently not those of the diocese. They include a prejudice against floating roofs void of support.

3 : It is not for anyone to say how Guildford shall wreck the finest opportunity since Liverpool, but it is, presumably, for the Competition Committee of the Institute to say clearly and quickly whether or not the present method is approved for those who wish to serve the profession honourably.

4 : That the site (though mentioned with bated breath) has been waiting for centuries for a cathedral. Only those who have seen it can feel really keenly about the matter.

"FANE"

Official Architecture

SIR,—The opening yesterday (September 16) of the newly-developed Branksome Chine Gardens by the Minister of Labour, and the plans then revealed for future development of the coast, suggest that architects in Hampshire and Dorset need to safeguard their interests against borough engineers. In the Poole area the local engineer, who is an exceptionally active man, was recently responsible for the new Pavilion at Sandbanks. He has just drafted a scheme for the development of the East Dorset sea-front by the construction of a sea-wall, artificial chines, a bathing station, and cafés.

Within the past few weeks the Government have agreed to give financial assistance towards the cost of new municipal buildings at Poole for the plans of which the same borough engineer is responsible.

These and other developments in the district mean that hundreds of thousands of pounds of work, which in pre-war days would have been designed by private architects, has now passed to local government officials.

B. S. T.

Surveyors' Scale of Charges

SIR,—Although the Government, quite rightly, insists on, and embodies in all contractors' contracts, the condition that recognized trade union rates be paid to all employees, I find that quantity surveyors (of whom there are many in this Association), in their dealings with Government departments, especially H.M. Office of Works, find their scale of charges cut down to an "impossible" figure. Indeed, so many fully qualified quantity surveyors have lost money over their transactions with the Government that they now refuse such work.

Apart from the principle being decidedly bad and, incidentally, opposed to all tenets of a Labour Government, the best brains in the profession cannot be obtained by such procedure.

The layman may not know what a quantity surveyor's work is. The services of a competent quantity surveyor prevent the employment of the "wrong" firm on a job and ensure that trade conditions be observed, that inexperienced estimating be discouraged, that careless mistakes be discovered, and that sharp practice on a contractor's part be detected and thwarted.

It is evident that practitioners of this important profession are being maltreated by the Government. No trade union would take such treatment lying down.

G. B. J. ATHOE
(SECRETARY, INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS)

Art and Industry

SIR,—In the report of Mr. Henry G. Dowling's lecture on "Are Art Schools Assisting Industry?" (August 13, page 240) there is a suggestion of a national survey and report on art in relation to industry. I would like to endorse and to amplify his suggestion.

Whilst the work of the schools of art is, and must be, many-sided, there can be no question that great importance attaches to the education and training of designers to guide the decorative processes of mass production in industry.

To do this effectively there should not only be close co-operation between the schools and a properly organized Royal College of Art, but, speaking generally, the ties between schools and industry should be strengthened.

Individual schools, in close touch with local activities, are doing excellent work. Something more than this, however, is called for.

An inquiry conducted by the representatives of the Board of Education, Board of Trade, Federation of British Industries, Design and Industries Association and the National Society of Art Masters should reveal the possibilities of the position and result in collective action of the most fruitful kind.

WALTER M. BARNES
(PRESIDENT OF THE NATIONAL SOCIETY OF ART MASTERS)

Canals for Heavy Traffic

SIR,—The plea that to ease the congestion of our roads some of the heavy traffic should be diverted to the canals, will receive, I hope, the consideration and support of all commercial undertakings. Not only are our roadways entirely inadequate to bear the strain of the continually increasing stream of traffic, but, as Sir Frank Baines and others have recently pointed out, the buildings which line the highways will be unable soon to withstand the constant vibration caused by such traffic. Especially is this the case in our University cities, where centuries-old colleges are subject to this great menace.

Unfortunately, it is far too generally believed that canal transport is obsolete and too slow for modern conditions. Yet it is a fact that delivery by this form of transport in many cases is quicker than by train. The craving for speed is a twentieth-century obsession; it is rarely an essential factor in the transport of heavy goods. The building trade, in particular, might study this problem with advantage, for the canal boat is ideally constructed for the conveyance of steel girders and bricks. Non-perishable agricultural produce also might be conveyed conveniently by this means.

It is not too much to say that a volume of traffic greater than that now sent by road between London and Birmingham could be carried by water when the recently authorized development of the Grand Union Canal system is completed. Even now there could be a continuous stream of day and night traffic on our inland waterways without causing congestion.

P. J. HANNON
(CHAIRMAN, NATIONAL COUNCIL OF INLAND WATERWAYS)

Settling-Up Honeywood : xvii

SPINLOVE COMES TO HEEL

BY KARSHISH

(H. B. CRESWELL)

Sir Leslie Brash, the owner, who has strongly resented a bill of extras estimated as likely to amount to £1,892, has been informed by the architect, Spinlove, that the Statement of Account shows a reduction on this amount of £90. This small mercy, for the architect, is however balanced by loud complaint from Lady Brash of the return of certain mysterious smells which formerly pervaded the house and then disappeared. A more serious matter is the failure of the paint-work. Brash ordered the paint; the builder, Grigblay, says it was faulty; the manufacturer that it was wrongly used, and Brash is contemplating an action for damages against one or both of them.

SPINLOVE TO GRIGBLAY

Dear Sir, 15/10/26.

I enclose list of various small defects which have been standing over so that they might all be dealt with together. Sir Leslie Brash agrees with the list and I have sent him a copy of it. Failure of Riddoppo was added by his orders. He understands, of course, that you do not intend to touch the paint.

I have had further complaints of smells in the house. It seems that they are the old smells, but they are now stated to be much worse than they were before. I wish Mr. Grigblay would go to the house on an early day, as he is often in the neighbourhood, and let me know what he makes of it.

Yours faithfully,

Spinlove, as we remember, has held back the making good of defects until they should have fully developed, and so that all might be dealt with at one time; and he then, quite properly, obtained Brash's agreement to what Grigblay was to be required to do. This is a most necessary step, not only to make sure that his client's ideas will be satisfied, and to protect the builder who is entitled to know definitely and finally what is required of him, but to put his client in mind of a fact he is liable to forget—namely, that the builder is not at his beck and call, but that there is a strict limit to the demands that can be made upon him.

It is the duty of the architect to decide what work a builder shall be called upon to do in fulfilment of his covenant to make good defects. The list represents Spinlove's requirements in this particular, and as he does not hold Grigblay to blame for the failure of Riddoppo, he ought not to include that item. It is important for an architect always to maintain a definite position, and to be consistent, and to act in exact accord with the forms prescribed by the contract; but when, as in this case, he knows he may have to justify himself to lawyers, he cannot be too cautious and circumspect. These miserable contests, however, invariably lead to cross-purposes and confusion; and we may suppose that if Spinlove had declined to put Riddoppo on the list, he would have fallen out with Brash, and that he accordingly took the line of least resistance by including it and telling Grigblay it was understood he would refuse to touch the paint. This is consistent with Spinlove's policy, throughout the whole of the affair, of sitting on the fence; but he will cut a sorry figure when lawyers begin pressing their questions.

SPINLOVE TO LADY BRASH

Dear Lady Brash, 15/10/26.

I am so very sorry to know you are troubled with this unpleasant smell, and have arranged for Mr. Grigblay to call on an early day and make a thorough investigation of the cause which I am convinced cannot be far to seek.

Yours sincerely,

In spite of Pud's endorsement of her mother's complainings, it is clear that Spinlove still refuses to believe that the reported smells can be due to any defect in the building. In this his native tenacity seems a little misplaced. He is wise, however, in making no reply to Lady Brash's suggestion of a radiator in the converted boxroom, for such a radiator would be likely to develop the same defect as the fire does, and "give out no heat." "Jazz" seems to have answered Pud's letter in his own hand, for there is no copy of his reply on the file. He has disappointed us in this way before.

GRIGBLAY TO SPINLOVE

Dear Sir, 16/10/26.

We are obliged for list of defects requiring attention to complete contract, and will put same in hand next week, except making good Riddoppo, which, as we have stated, is no business of ours, and which we respectfully refuse to do.

Mr. Grigblay regrets he cannot take any further action *re* reported smells, as he has already obliged once and could find nothing amiss except mischievousness by the servants, which has since been put right.

Yours faithfully,

Grigblay's refusal to investigate the smells is natural. It is not many months since he put himself to some trouble to get to the bottom of complaints for which he could find no justification; and Spinlove's peremptory manner of calling upon him to pacify Lady Brash a second time—which, in any case, is Spinlove's job and not Grigblay's—would properly dispose Grigblay to refuse the favour even if he were otherwise inclined to grant it.

LADY BRASH TO SPINLOVE

Dear Mr. Spinlove, 16/10/26.

I do not want Mr. Grigblay to call any more, he does not wait to listen to me but only says there is nothing wrong and it will be all right in the summer and goes away and nothing is done and all getting worse and worse every day and the fire giving out no heat no matter how much coal so that I cannot sit there it is so *freezing* with the cisterns making a *new* noise and I lie awake and keep wondering what is happening when I am not there, so will you send some *proper* person *at once* to say what it all means, as Leslie comes home tomorrow and will naturally want to know why it all is when he hears about it. You have been *most* kind and considerate I know, but now at last it must really stop for I cannot bear any more.

So depressing with the leaves falling and this cold wind !

Yours sincerely,

The poor lady is fast getting into one of her "states." In spite of her rambling ambiguities we may understand that it is the smells *that are the trouble. There seems to be no doubt that something is wrong, and the probability is that if Spinlove had applied himself to understanding the cause of the complaint when it was first made, instead of discountenancing all idea of smells and allowing the tough sensibilities of Grigblay to discredit the delicate perceptions of the lady, he would have saved his clients great annoyance and inconvenience, and himself much trouble and anxiety.*

BRASH TO SPINLOVE

Dear Mr. Spinlove, 19/10/26.

I returned yesterday from the Shire [*sic*] where I have been engaged in company with various sporting acquaintances in beguiling the wily partridge. A number of hares also fell to my bag, and I was fortunate in securing a polecat, an exploit which my host is commemorating by having the creature set up by Rowlands. The event is the subject of a paragraph in this week's *Field*, you will notice.

Your communication anent extras was forwarded on to me, and I now write to intimate my satisfaction at the amount of the final total. I confess that I anticipated that the previous summary would again be eventually increased, and my gratification at your intimation that there is a reduction of £90 on the previously estimated figure, is considerable. There is also, I have noted, the additional

saving of £92 in respect of over-payment for bricks which you previously reported, making £182 in all. May I point out that the figure £1,753 should be £1,743. This error does not, however, affect the ultimate total of extras £1,802 11s. 9d., which I take to be final and to represent my inclusive liabilities except the residual balance of your own outstanding fees of which I shall be glad to receive particulars.

Anent the list of defects, the question of responsibility for the Riddoppo failure has the further attention of my solicitor, from whom I expect shortly to receive a communication.

I must now, I regret to intimate, request your attention to a serious matter. On my return home I find that the malodorous emanations have returned with such virulence that the whole domicile is involved, our domestic staff almost in revolt, and Lady Brash so affected in health that immediate change of air is imperative, and she is leaving for Brighton tomorrow.

In the past there has been some doubt as to the existence of unsavoury effluviums, but that doubt no longer persists, as both my daughter and myself have experienced disgusting vapours in various parts of the house, which are particularly obnoxious at night and in the early morning. The matter now brooks no further protracted delay, and as a first step towards elimination, I request that you will on the earliest day possible come and sleep in the house and apply your trained discernments to the identification of these nauseating savours, the repulsiveness of which, if they continue, will render the house permanently uninhabitable. I shall therefore anticipate a telephone message from you tomorrow, signifying the earliest day on which we may expect you.

Yours sincerely,

A remarkably urbane letter under the circumstances! Brash's beguiling of the wily partridge and his newly-acquired polecat fame seem to have given ballast to his moral equilibrium; but his surprising acceptance of the extras account must, in the main, be due to quite other causes, and supplies an instance of the entirely unexpected that so commonly sways the affairs of men. It was not to be expected that a reduction of £182—as he supposes—would reconcile Brash to the claim for £1,900 which he had so hotly repudiated; yet this, it appears, has happened, and the explanation, stripped of the subtleties with which the psychologist would load it, is plain enough. First, Brash has already exhausted his indignation, blown off all his steam, fussed away all his available fuss: he is heartily sick of the subject, and having had a respite of some weeks has no wish to lash himself into a renewal of his sense of grievance. This is a common weakness in men who have not the habit of self-control. Second, as he tells us, he had made up his mind that the estimate of extras supplied him would prove to be a mere stepping-stone, or half-way house, to a much larger final claim as, except for Grigblay's honest good sense in preparing the estimate, it might well have been; and the fact that the worst is now revealed to be so much better than was expected has reconciled Brash to the figure and led him to forget how unacceptable it once seemed. Third, with the serious contest over the paint unsettled, and the new trouble of the inexplicable smells to be disposed of, he is glad to settle the question of extras.

SPINLOVE TO BRASH

Dear Sir Leslie, 20/10/26.

This to confirm arrangement by telephone, that I will meet you at Charing Cross on the 5.25 tomorrow. I am astonished at what you tell me. Why these smells should suddenly reappear, and worse than formerly, is extraordinary—as indeed is the fact that there should be *any* smells. I will do my best to get to the bottom of the matter, though I cannot think that the trouble can be due to any defect in the work.

I have also to thank you for your letter. I will let you have particulars of my charges. The final payment to Grigblay falls due on November 10, as you know.

I should mention that the refund of £92 from the brick manufacturer *is included* in the Statement of Account. I will bring the Statement with me tomorrow, for you to see.

Yours sincerely,

We may hope, for Spinlove's peace of mind, that it has not occurred to him that the smells may be those associated with extensive dry rot; but, in point of fact, the early manifestation of the smells, their complete disappearance and their sudden return, does not indicate such a source.

We may also hope that the reflection that this was the last of Spinlove's snatching exploits, reconciled Brash to the vanishing of the £92 with which he had endowed himself.

SPINLOVE TO GRIGBLAY

Dear Sir, 22/10/26.

I went yesterday to Honeywood at the urgent request of Sir Leslie Brash to investigate the smells complained of. I am at a loss to understand Mr. Grigblay's report to me earlier in the year that there were no smells, for there is no doubt whatever that the house is pervaded with a sour, stuffy atmosphere. What the cause of this is I have no idea. The smell was described to me as like that of a third-class carriage in a tunnel on the Southern Railway; and I was myself once or twice reminded of a smoky chimney, but there were no fires in the house except the heating and hot-water furnaces and the kitchen range, and the smell is most noticed at the opposite end of the house, particularly in the bedrooms; in fact, the stuffy odour can be at once detected in Nos. 9, 10, 12, 15 and 16 if they are kept shut for a few hours, but it is scarcely noticeable—if at all—anywhere downstairs. I slept in the small spare room (No. 9 on plan) with the windows shut, and the disgusting atmosphere was proved when in the morning I opened the windows and breathed fresh air. I was conscious of an oppressive sensation in my chest and a listless enervated feeling when I first got up, and had a slight headache.

I may say that Sir Leslie Brash is most tolerant of what must be a great annoyance, but he naturally expects that the state of affairs shall be put an end to at once, and I will ask Mr. Grigblay to meet me at Honeywood either at 3.30 tomorrow afternoon, or in the course of the following day, and I shall expect to hear from you by telephone in the morning.

Yours faithfully,

If we had not such frequent cause to resent the peremptory, ill-mannered tone in which Spinlove addresses those under his direction I should call attention to this instance of it. It is particularly to be regretted when he is addressing Grigblay, to whom he has been in the past greatly indebted.

GRIGBLAY TO SPINLOVE (AUTOGRAPH)

Sir, 23/10/26.

I was away all today, but your letter was sent up to the house so I should see it tonight. I understand they rang up from the office to let you know I could not meet you today, and I now write to let you know I cannot meet you tomorrow and for the following reason.

I may have as good a nose as most, but I don't hold out to have a better and there is no use my joining in any sniffing match up at Honeywood, for that, if you will pardon me, is all it would amount to. If what you say is fact—and I do not doubt it is, for you will find that I dropped a hint of the same in the report I made last spring—I can make a guess what is the matter, and it is no small matter either; but the first thing is to find out whether the trouble is what we think, and to do that we want something a lot better than any nose, and that is a "detector," and my advice, sir, is to ask Mr. F. T. Pricehard, Consulting Analyst (somewhere in Westminster he used to be), to send down and test the air same as they do in mines, and he will tell us what the fumes are—if there are any—or if it's dead mice he will tell us that. He will not charge a large fee, and if the trouble's any fault of mine I will pay it, and if not I take it the old gentleman will.

You will excuse me telling you what I think best, but if Sir Leslie wants the trouble put right the first thing is to find out what trouble it is, and if Pricehard can't say, nobody can.

I am, sir,

Yours faithfully,

In the report he refers to, Grigblay attributes a stuffy smell he noticed to down-draught in the flues carrying smoky air from adjoining chimney-pots into certain rooms, and it now seems that he suspects the smells to derive from smoke fumes. The "detector" he refers to is a simple apparatus for the ready measuring of the deadly monoxide gas that accumulates in sewers, coal mines, and other places. Pricehard's methods, however, would be more exact than those made possible by the use of such an instrument.

SPINLOVE TO GRIGBLAY

Dear Mr. Grigblay, 25/10/26.

Thank you for your letter. I have spoken to Sir Leslie, and have today sent instructions to Mr. Pricehard.

Yours truly,

SPINLOVE TO PRICEHARD

Dear Sir, 25/10/26.

In confirmation of arrangements made over the telephone today, I enclose the full history of the "smells" at Honeywood and particulars of the construction of the building. Plans showing drains and all service pipes are hanging in the kitchen passage.

Sir Leslie Brash has arranged for doors and windows of bedrooms to be kept shut on Thursday, and will send his car to meet the 2.5 from Charing Cross at Wedgfield Junction.

Yours faithfully,

PRICEHARD TO SPINLOVE

Dear Sir, 6/11/26.

I enclose report which gives analysis of samples of air taken in the rooms at Honeywood Grange specified in the report, at the times and under the conditions described.

The slight trace of sulphur dioxide (SO_2) would account for the smell noticeable. The presence of sulphuretted hydrogen (H_2S) was not revealed by the ordinary tests used. Carbon dioxide (CO_2) 0·048 is scarcely more than would be found in normal air. Carbon monoxide (CO) 0·015 (in the worst sample) would be likely to produce headache, giddiness and oppression, after some hours.

I am of opinion that fumes from closed coke fires is present in all the samples of air I took. There are two such coke furnaces in the house, that of the heating service and that of the hot-water supply, either of which might be the source of such fumes; but I am not in a position to say how those fumes are dispersed through parts of the house remote from the furnaces.

I enclose note of my charges.

Yours faithfully,

So Lady Brash is vindicated at last! Carbon monoxide, which is colourless and without smell, is in high favour with suicides who find their most exacting needs supplied at a quite trifling cost by the public gas companies; but the solicitude of an architect who lays on a continuous supply of it to the bedrooms is likely to be regarded as mere officiousness. If the percentage Spinlove appears to have arranged for at Honeywood had been 0·15 instead of 0·015, no one would be likely to have survived one night.

Pricehard's investigation probably took the form of drawing samples of the suspected air through burettes with ball-bellows until the original air in the burette was displaced by the tainted air, and then closing the cocks at each end of the burettes. The contents of the burettes, each of which would have a capacity of about 200 c.cs., would then be subject to analysis in the laboratory.

[NEXT WEEK : XVIII—BRASH IS STRANDED]

CHURCH ACOUSTICS

The following notes on acoustics represent one of many inquiries submitted to the Information Bureau of the Building Research Station, and the reply thereto.

An architect wishes for information regarding materials suitable from the acoustic point of view for use in churches.

THE study of acoustics of buildings has received much attention in late years and, as a result of investigations which have been carried out, the acoustic design of buildings has been established on a definite scientific basis.

The most common defect in buildings which are used for public speaking or musical performances is that due to an excessive period of reverberation (i.e. the time during which sound persists after the source has ceased). This is due to the reflection of sound from hard-bounding surfaces of the auditorium. It has been found that this period of reverberation should not exceed 1½ to 2 seconds, depending on the total volume of the auditorium.

The actual period may be calculated for any known set of conditions from consideration of the volume of the auditorium and the total value of acoustic absorption.

The total absorption is determined by multiplying the area of all bounding surfaces by the absorption coefficient appropriate to the material employed on the surfaces. In addition, allowance must be made for the absorption of sound by the audience, furniture, hangings, etc. Having determined the total absorption actually present in any given case, it can then be ascertained whether this is greater or lesser than the amount shown by calculation to be necessary to reduce the period of reverberation to the required limits. In the event of a deficiency this may be corrected by the introduction of suitable areas of material having a high sound absorption coefficient. It should be noted that sound absorption coefficients are available for a large number of materials in common use.

From these considerations it will be noted that in the actual choice of plasters or other lining materials the designer may be guided by simple arithmetical calculations.

The shape of the auditorium must also be considered, as it is possible that, although the period of reverberation is of the desired order, trouble may be experienced due to echo produced by focussing or reflection of sound from some part of the bounding surfaces. In such cases it may be found desirable to cover the reflecting surface with a good absorbent or to make some modification in the shape of the building. In many cases a certain amount of reflection is desirable as it reinforces the original sound, but it is generally considered that the difference between the length of path of direct and reflected sound should not be greater than about 70 feet, otherwise confusion for the hearer may result.

OBITUARY

W. GILBEE SCOTT : 1857-1930

It is with deep regret we record the death of Mr. W. Gilbee Scott, F.R.I.B.A., F.I.A., on August 31, after a brief illness.

Born in 1857, he studied at the Architectural Association and Royal College of Art, South Kensington. He was articled to Messrs. Habershon and Brock, of Bedford Place, and afterwards served under the late Mr. Ewart Christian, until he commenced private practice. He was a recipient of the R.I.B.A. Silver Medal in 1877, for measured drawings.

He frequently acted as arbitrator in building disputes, and as an expert witness in the courts. Mr. Scott took a great interest in the question of the Registration of Architects.

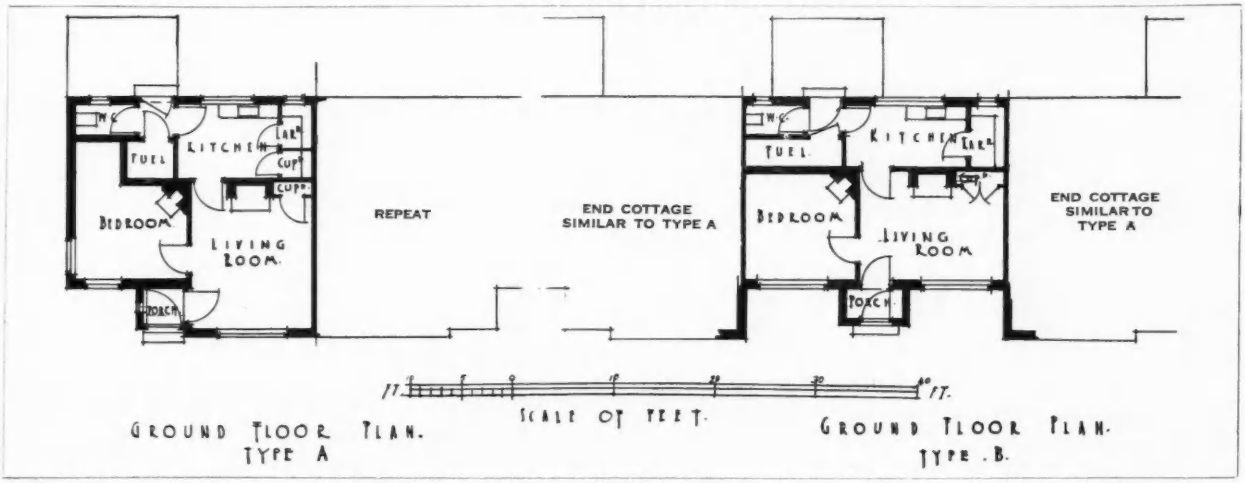
During the course of his career he was responsible for the design of many churches, halls, private houses, schools, and business premises. He had been successful in many competitions.

ALMSHOUSES AT POTTERS BAR, HERTFORDSHIRE

DESIGNED BY OSWALD P. MILNE

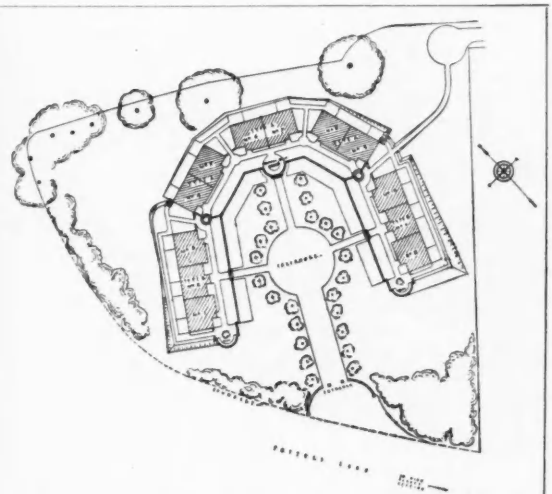


A view from the south-west. The almshouses have been erected for the Governess and Sisters of the Jesus Hospital Charity.



Ground-floor plans of the two types of cottages. They are erected in groups of two and three as shown in the lay-out plan below.





A view from the terrace; and the lay-out plan. The walls are built of multi-coloured sand-faced bricks with a flush joint; the roof is covered with red sand-faced tiles.

THE SPECIFICATION WRITER

Dry Rot: Cause, Prevention, and Cure

BY W. P. K. FINDLAY, B.SC., A.R.C.S., D.I.C.

AN architect is frequently called in by an intending purchaser to survey a house for the presence of dry rot. This is a task requiring a good deal of care, as quite a severe outbreak may show practically no signs on the exterior of the wood and so escape unnoticed. A panel may be perfectly rotten, yet the surface and $\frac{1}{16}$ in. behind the paint be unaffected. A wavy surface, which may be felt by passing the hand over it, is a frequent indication of shrinkages due to rotten wood beneath. The "ring" of the wood when struck is a very useful sign as decayed wood gives a sort of dead sound, but perhaps the surest method is to probe all suspected places with a sharp-pointed tool, or to use a small auger. A sort of "mushroomy" or mouldy smell which is noticeable on entering a house that has been shut up for some time should make one suspicious of the presence of dry rot. Moulds, though not in themselves detrimental to the wood, except in so far as they discolour it, are an indication that conditions are damp and hence favourable for an outbreak of dry rot should infection be present.

A sagging of guttering or flooring or any form of settlement or displacement of timbering should arouse suspicion.

Special attention should be given to all enclosed timbers such as wall plates or built-in wood lintels; and any unevenness in the floors, especially those covered with linoleum, should be investigated. Parts of the house which are very commonly attacked by dry rot are the cellars, bathrooms, lavatories, larders and wherever there is any danger of condensation of moisture, such as in the skirting at the foot of painted or tiled walls and around piping.

When decayed wood is discovered in a house, an attempt should be made to determine what fungus has been responsible and, if *Merulius lacrymans* is discovered, immediate steps must be taken to get rid of the infection completely.

A careful survey should be made of the house and the origin and the focus or foci of the decay traced out. It is often most difficult to decide what has been the source of the infection to the house; the timber may have been already infected when placed in position—the fungus can remain dormant for years—or timber used for replacements may have been infected. The trouble is sometimes traced to the coal cellar, where spores of the fungus may have been introduced with the coal which has been infected in the mine, where there is often much rotten timber. Another source of infection is from firewood or it may have come from scraps of timber in the soil, where the fungus can remain alive for a considerable time.

As indicated above, dry rot always begins in a place where damp has reached the timber and the source of this must be sought out and removed. Any accidental leakage of water, as from a cistern, must of course be put right at once.

Cracks in rough cast or cement facing may have admitted rain to porous bricks, broken tiles or faulty guttering may let in water to roof timbers, while damp proof courses may be rendered inoperative by the heaping up of the soil in a flower bed above the level of the course. Such sources of moisture as these are easy to detect and to stop, but the moisture derived from condensation due to lack of suitable ventilation is much more difficult to deal with.

The next step is to remove all infected timber and fungus remains and to burn them. When cutting out infected timbers it is necessary to cut away for a distance of 12–18 inches beyond the last visible signs of decay, because the infection is usually present beyond the visible decayed area. It is strongly advisable to remove every scrap of infected timber, for trouble may break out again if there is a trace of infection left. In certain cases where a main timber, such as an important roof or floor beam, is suspected to be infected but is mechanically sound and, on account of the expense involved, cannot be removed, this should be treated with some antiseptic: the surface should be scraped and given several heavy dressings of preservative applied hot, with a brush or spray. A series of small holes should be drilled diagonally across the beam in such a way that the whole transverse section of the beam receives treatment. These holes should be filled several times with hot preservative and then plugged. But it must be strongly emphasized that in all possible cases every scrap of decayed wood should be removed; to leave any infection in is merely to invite further attack at a later date. Wall fixing plugs and blocks are often infected and should be removed and replaced with treated wood or by breeze blocks.

When all the decayed material has been removed, the wall surfaces and any sound timber exposed should be sterilized; strands of the fungus may be present in the mortar and they have even been found in the interior of a brick. The sterilization of a brick wall may be effected by heat applied by means of a blow lamp. It is difficult to sterilize the surface of timber by heat without charring it, and this can best be done by means of an antiseptic. In considering the most suitable wood preservative to use there are several points to be considered: for all exterior work creosote is about the best material; it is highly toxic to the fungi, penetrates fairly well, waterproofs to some extent and does not wash out; for interior work it may also be used, provided that there is no objection to its smell and that there is no danger of its coming in contact with plaster or paint, which it may easily ruin. Some of the proprietary wood preservatives, prepared from tar-oil distillates, of which there are several well-known brands, are also excellent; they penetrate somewhat better than the straight creosote, are cleaner and smell less pungently, but they are, of course, much more expensive and, like creosote, must not come near plaster or paint.

When it is desired to preserve the woodwork of a place where any smell is objectionable, such as a cold store for food, one of the water soluble salts, toxic to fungi, should be used. These have the advantage that the treated wood may be painted over, but as they are water-soluble they are not so suitable for very wet situations, where they wash out.

Sodium fluoride (commercial) is one of the safest and most efficient of these salts and should be used in a 2 per cent. solution in water. Acid magnesium silico-fluoride is somewhat more toxic to fungi, but in using this, care must be taken to prevent its coming into contact with metal (nails) or glass, and it should be mixed in a wooden tub; it is used in 5 per cent. solution ($\frac{1}{2}$ lb. of salt in one gallon of cold water) and has no ill effect upon wood, mortar or plaster. Certain proprietary mixtures of salts containing sodium fluoride and dinitrophenol derivatives are extremely efficient and may be used without difficulty. Corrosive sublimate (mercuric chloride) is most effective, but, on account of its terribly poisonous nature, is seldom used nowadays.

All timber used for replacements into positions where there has been dry rot should be well treated with one of the preservatives mentioned above. In situations exposed to severe risk of decay, timber impregnated in a cylinder or in a tank should be employed, but in all cases the wood should receive at least two generous brush treatments *after* being shaped up to the final dimensions.

Every effort should be made to increase the ventilation to all parts of

the timber. Additional ventilating bricks and grids may be put in, and all unnecessary obstructions to the free passage of air should be cleared away. Shavings of wood left by builders under a floor form a suitable place for dry rot to start and should be carefully removed.

In conclusion, one may sum up as follows: never use untreated timber in situations where adequate ventilation cannot be supplied; in treating a house infected with dry rot, do all that is possible to dry out the building and to keep it dry, and use nothing but preserved timber for all replacements.

Bibliography.

Dry Rot in Wood. Bulletin No. I. of the Forest Products Research Laboratory. Published by H.M. Stationery Office, price 1s. 6d. (gives useful practical hints as to treatment, etc.).

Hausschwammforschungen, Vols. 1–8, by Drs. Moller and Falck. Contains the classical work of Dr. Falck and others, describing all aspects of the dry rot question in great detail (in German).

[*Concluded*]

[The previous articles in this series appeared in our issues for August 20 and September 3.—ED. A.J.]

White Paint Tests

THE results of weathering tests made in America during the past six years on a large number of laboratory-made white paints, are reprinted in the July issue of *Building Science Abstracts*[1] by the Department of Scientific and Industrial Research. The paints have been applied either in three coats on carefully selected wood panels, or in two coats on thoroughly cleaned metal panels.

The results observed indicate that pure white lead paints are satisfactorily durable. Lead-zinc paints, with zinc oxide contents not exceeding 30 per cent., are also satisfactory. An increase of the zinc oxide content to 50 per cent., however, results in cracking and scaling in paints on wood panels. On metal, lead-zinc paints (zinc oxide content not exceeding 30 per cent.) are better rust preventives than are pure white lead paints. Titanium-zinc paints, provided that the zinc oxide content does not exceed 30 per cent., are weather-resistant and remain clean and white longer than do lead-zinc or white lead coatings.

After three years' exposure titanium-zinc paints—some containing a mixture of titanox, zinc oxide, and white lead—are giving good results. Among the best of these is a mixture of titanox, 45 per cent., zinc oxide, 20 per cent., and white lead, 35 per cent., this coating being free from cracks and having worn, by slight chalking, to a smooth, clean surface. Increase in the zinc oxide content, while retaining the ratio of the other constituents, results in cracking.

Pure titanium oxide, calcium titanox and barium titanox paints chalk excessively. The vehicle used in these paints consisted of 60 parts raw linseed oil, 20 parts heavy-bodied linseed oil, and 20 parts turpentine and drier.

[1] H.M. Stationery Office. Price 9d. net.

Suspended Partitions

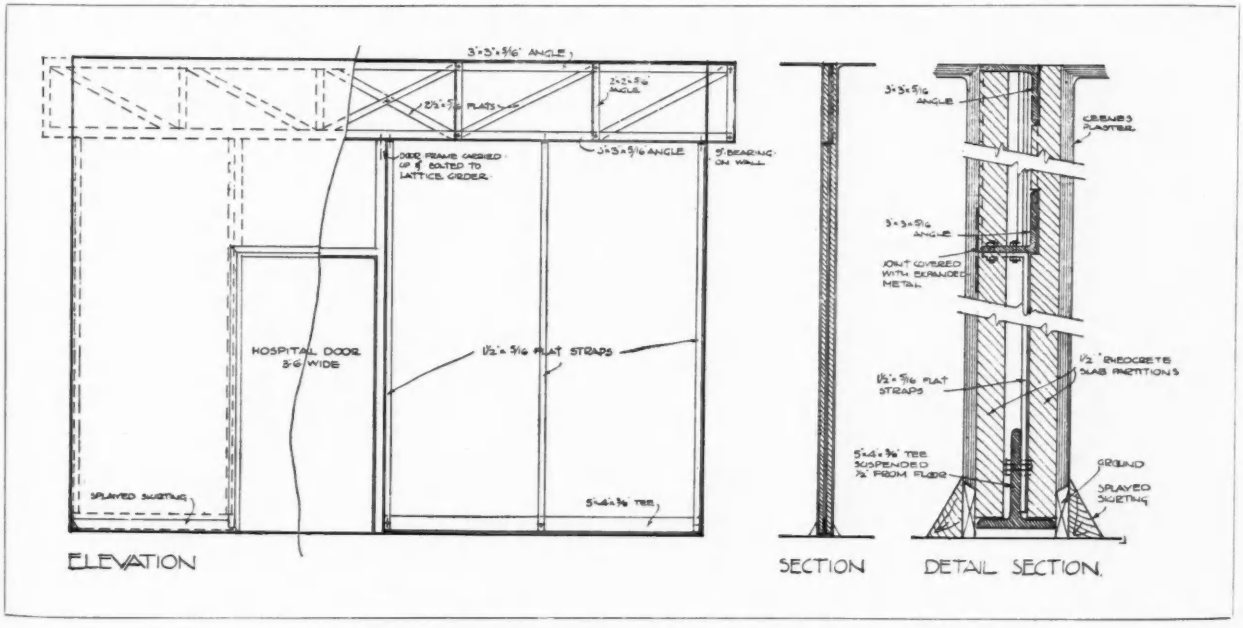
The following details of an interesting method of constructing partition walls, where floors are of inadequate strength to support the weight entailed, have been received from Mr. A. Saxon Snell (Messrs. Alfred Saxon Snell and Phillips, FF.R.I.B.A.):

IT happens, not infrequently, that it is necessary to divide a large room into smaller ones, and if (*a*) the existing floor joists are of sufficient strength to bear the extra weight of partitions; or (*b*) it is possible to insert a steel or other joist to support the partition; or (*c*) to erect a trussed partition, no difficulty arises.

None of these solutions was possible in a case we had to deal with lately; and the method we adopted is shown on the accompanying drawing. The main support was a light section lattice girder carried from wall to wall (in one case, 40 ft.), from which 1½ in. by $\frac{5}{16}$ in. flat steel rods were hung at intervals, and bolted to a 5 in. by 4 in. T-iron at the floor-level; or, rather, ½ in. above the floor, so that no weight at all came upon the floor. On the flanges of the T-iron, 1½ in. Rheocrete concrete blocks were built on each side, tied together, of course, at intervals, and finished in Keene's cement.

These hanging partitions were kept in position by 3 in. by 1½ in. splayed skirtings nailed to the floor; but for temporary stability, a few wedges were driven between the T-iron and the floor.

We find these partitions sound, with no "give" in them; and there is not the slightest sign of sagging in the girders, although in some cases they have to bear the weight of cross partitions in addition.



Typical elevation and sections of a suspended partition.

QUESTIONS THAT ARISE

Claim to Materials

P. K. writes: "*A builder, carrying out a contract (under R.I.B.A. conditions of contract), has become bankrupt during the course of the job. For his convenience he has stored a quantity of bricks, timber, etc., on an adjoining plot, as the building area is somewhat restricted. There is little likelihood of the builder completing the job, but he has not yet attempted to have these materials removed from the adjoining site. Can I claim these materials on behalf of my client, for use on his property?*"

If the builder is unable to complete the works he contracted to carry out, only the materials on the site can be retained by "P. K." on behalf of his client. He has no right to any claim to the materials stored by the builder on an adjoining plot, even though they were intended for the work.

M. W. R.

Cesspool

M. G. writes: "*A house was erected in 1895 with a cesspool which complied with the model bylaws prohibiting the placing of a cesspool within 50 ft. from a dwelling-house. It is now proposed to build a house on the adjoining land, back from the building line, the rear wall of which is 15 ft. from the cesspool belonging to the original house adjoining. Have the local authorities any powers to insist on the last-built house being erected 50 ft. from an existing cesspool?*"

The local authorities have no power to prevent the erection of the building in this position, on the grounds of nearness to the cesspool. If they could do so, it would be detrimental to land, with a narrow frontage adjoining property with a cesspool near the boundary, as regards value for building purposes.

J. E. K.

Electric Lamps

J. A. writes: "*Electricians from the supply company in this town come to repair and look at my lamps from time to time, and talk of gas-filled and metal filament lamps. To me they all look alike. Can you explain the advantages of one over the other?*"

The original electric lamp bulb was what is known as a carbon lamp, and has now been superseded by the metal filament lamp. The filament in the bulb, which is the lighting power, is formed from a rare metal, known as tungsten, which becomes intensely hot and glows in the vacuum of the bulb.

The latest form of lamp, more efficient than the metal filament, is one in which the bulb is filled with an inert gas in place of the vacuum. The filament, instead of being shaped like a hairpin, is coiled into a close spiral, and by this means a higher filament temperature is gained, and therefore a brighter light for the same amount of current consumed.

R. H.

Errors in Quantities

M. G. writes: "*In a number of contracts I have settled, based on bills of quantities, I have found errors on the part of the builders in pricing. In one instance there has been a considerable extra on one item which has been wrongly extended. One hundred feet run of an item, priced by the builders at 15s. per foot run, was extended as £7 10s., having been taken in error as ten feet run. Should any extra on the item be priced at 15s. or one-tenth of that amount?*"

Your correspondent hardly shows a sense of fairness in raising the question regarding the reduction by one-tenth of the value of extras, owing to an error by the builders in the bills of quantities.

Errors in quantities stand as priced by the builder, by reason that the builder contracts to carry out certain building works for a stated lump sum.

Where extras occur, and it is obvious that there is an error in the bills, it is ridiculous to suggest penalizing the builders on that account.

In the case quoted above it is not the rate per foot run which is in error, but a mistake in extending, therefore the rate of 15s. per foot run will have to be the base for extras.

H. S.

A Garden Fence

F. P. R. writes: "*A and B are adjacent owners of freehold property, consisting of adjoining semi-detached houses with gardens at the rear of each. The separating fence between the gardens is 5 ft. high and of cleft wood. A proposes to erect a greenhouse on his side of B's fence, 20 ft. from the house. This will involve a concrete wall 8 ft. in height. Has B any right to object?*"

In order that B shall have no legal ground for complaint, it will be necessary for A so to erect the wall that its footings (if any) do not project upon B's land. Further, if the greenhouse should be constructed with a gable roof, or otherwise sloping back towards B's land, there must be sufficient clearance between the boundary fence and the wall to take the rain-water guttering, for B can object to the water from the roof falling on to his land.

The fence is stated to be B's property, and in such case A must not damage it in any way by the erection of the structure. The distance from the house and the height of the new wall would apparently rule out the possibility of B having any easement of light and air, which, in any case, would require nineteen years and one day for establishment.

It may be noted that the local authority have no jurisdiction over the erection, as any building erected and used exclusively for the purpose of a plant-house, summer-house, etc., and being wholly detached from any other building is exempt from the operations of the building bylaws.

A. T. A.

Measuring for Certificates

A. P. writes: "*I am responsible for the interim payments on several large housing schemes. I find, however, that it is getting too much for me to go round each month, taking notes and working the amounts out from these. I shall be glad to hear of any good system for keeping a check of the works done, which may save me valuable time.*"

I have been worried in the past by the question of interim certificates on large housing work, but have been greatly relieved by the following simple method. I take it for granted that "A. P." has several types of houses to deal with.

I arrange to divide the contract price of each type into stages, and have found that about thirty stages have worked very well, the amount of each stage being agreed with the builders.

A progress book is the next thing, and a page is kept for each type, similar to the following example:

TYPE "A"

	Block No.	1	2	3	4	5	6	
Stages	No. of houses	3	2	3	4	2	4	Totals
Site excavation	Here the clerk of works fills in number of stages done.							
Trench digging								
Filling to scully								

The clerk of works can easily fill in this book, and it only remains a matter of totalling up the number of stages of each type, and extending out at the agreed figures.

H. E. B.

Library Architecture

The fifty-third annual conference of the Libraries Association will be held at Cambridge from September 23 until September 27 inclusive.

On Tuesday, the opening day, a special session, to be held in the Arts School, is to be devoted to the consideration of the architecture of large libraries, under the chairmanship of the president, Mr. L. Stanley Jast, F.L.A.

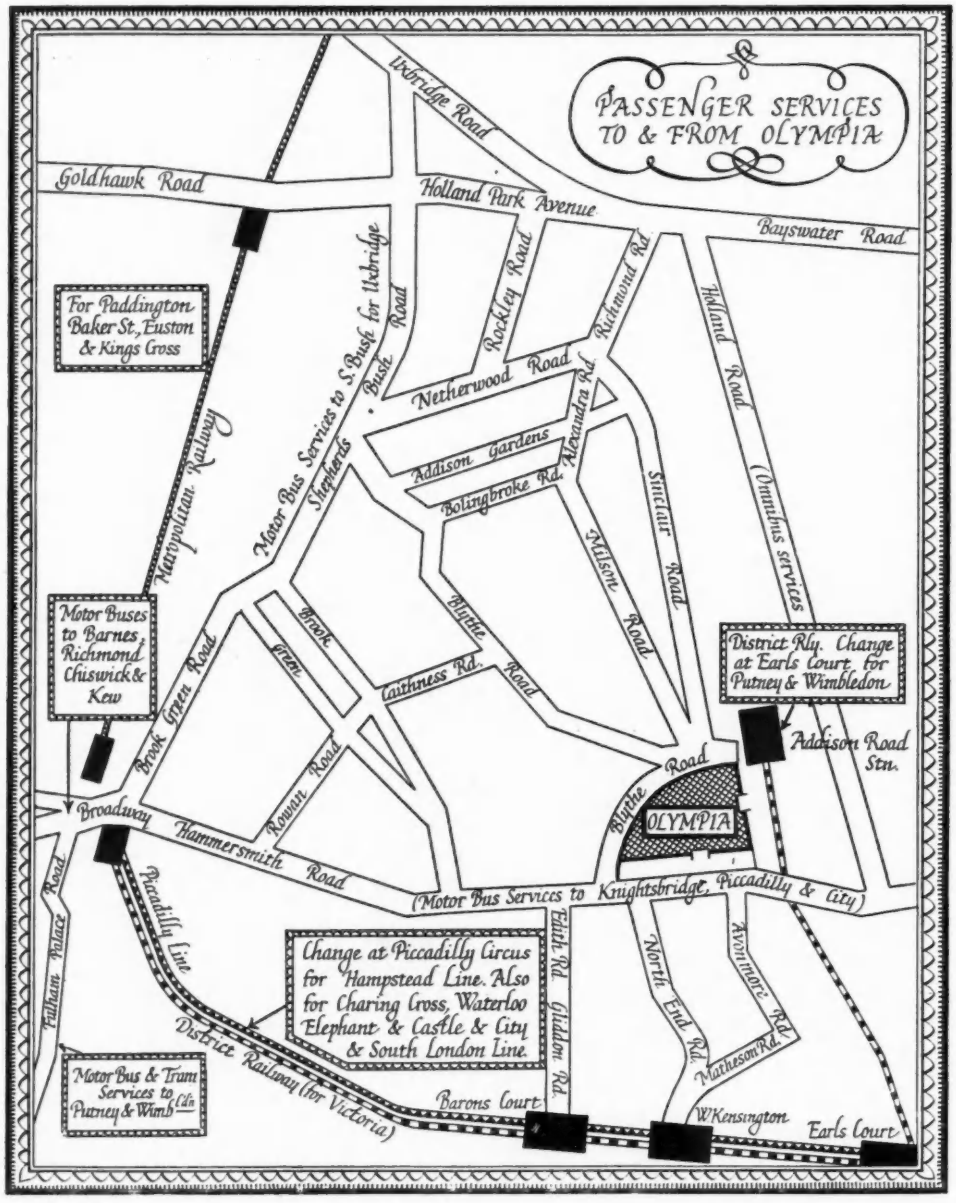
A display of architectural plans and models, arranged by the Association, will remain open throughout the week.

BUILDING EXHIBITION



SUPPLEMENT THE FIRST

How to get to Olympia



EXHIBITION ARRANGEMENTS

TODAY the Building Trades Exhibition will be opened at Olympia by Lord Burnham, HON. F.R.I.B.A., to whom a vote of thanks will be proposed by Mr. A. B. H. Colls, president of the London Master Builders' Association, and seconded by Mr. Thomas Barron, president of the National Federation of Building Trades Operatives.

The present exhibition will be found to be the biggest and most representative ever held. Thirty-five years ago the exhibitors numbered eighty-seven; today they reach nearly four hundred. Following is a list of the principal conferences and visits:

Thursday, September 18: Southern Counties Federation of Building Trades Employers.

Saturday, September 20: Essex Society of Architects; Association of Architects, Surveyors, and Technical Assistants; London Builders' Foremen's Association.

Monday, September 22: Ceramic Society; British Refractories Research Association.

Tuesday, September 23: Ceramic Society; London Master Builders' Association; Visit of the Lord Mayor and Lady Mayoress.

Wednesday, September 24: Ceramic Society; Institute of Clayworkers, National Federation of Clay Industries, ball, evening; National Federation of Master Painters and Decorators of England and Wales.

Thursday, September 25: Institution of Sanitary Engineers.

Friday, September 26: Institution of Structural Engineers.

Saturday, September 27: Incorporated Clerks of Works Association of Great Britain; Incorporated British Institute of Certified Carpenters.

The photographic study, by Dell and Wainwright, of the Empire Hall, Olympia (page 419), is reproduced by courtesy of the London Brick Company and Forders, Ltd. Mr. Joseph Emberton was the Architect.

STANDARDIZE THE BUILDING INDUSTRY

THE Building Trades Exhibition, an event which few architects can afford to miss, takes place this year in the autumn. For ourselves, we think the time more suitable. Winter lies in front of us, to be sure, but a mighty proportion of the year's building work is planned during the winter months. Architects, cheered and invigorated by a holiday of sorts, will be settling down in front of their drawing-boards. To many of these this exhibition will come as a godsend. It is the outcome of friendly co-operation between the management, manufacturers, merchants, architects, and builders, in the same sense in which trade is the result of co-operation between buyer and seller. Such an exhibition promotes the best interests of trade; and this one those of the building industry in particular. Good workmanship, fair dealing, keenness and alertness, inventiveness, receptiveness to new ideas and readiness to make new experiments, improved processes of manufacture, new materials, just conditions of labour, up-to-date business methods in selling and delivery—all such are encouraged and advanced.

In what sections of the building trades may we expect the greatest advance to have been made since the last exhibition was held in April, 1928? Certainly much has been done towards flooring improvement, in the greater use of mechanical aids in building, in the greater use of plywoods, plate-glass and asbestos composition sheeting. Here architects and builders are giving property owners values in materials and services which have never been exceeded in past years. In flooring construction, whereby sound- and fire-proofness have been contrived within a minimum depth never anticipated years ago, the rent-yielding or useful cubic content of buildings has been increased. By the use of rubber flooring the utility, comfort and silence of public buildings have been enhanced. With further use of mechanical aids by builders and contractors, costs of erection should be reduced.



Sir Banister Fletcher, P.R.I.B.A., Chairman of Building Trades Exhibition.

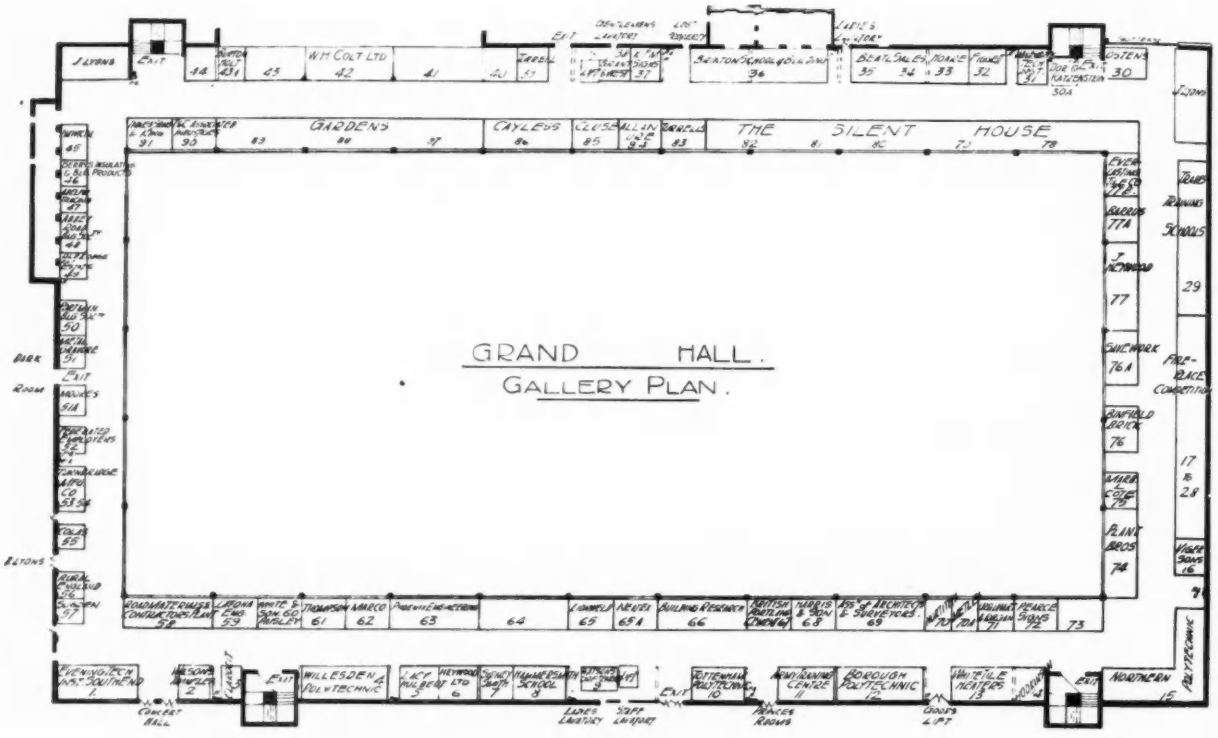
More than ever it will seem clear to architects this year that the time is over-ripe for a large degree of standardization in the building and allied industries. An easy direction in which to commence would be with builders' hardware and ironmongery. The large stocks of these goods and accessories, which the house engineers and resident architects of buildings are obliged to keep on hand to meet emergencies, are due to needless multiplicity of design and dimensions. Only through properly planned simplification and standardization may we reach higher levels of building economy and more creditable levels of æsthetic fitness. The primary objects of several standardization committees—not in England alone—have been lost sight of by men whose minds were too involute, men who dallied with detail and forgot the general view of things. Nor need we fear that the reduction of variety will necessarily imply monotony. If the dimensional variations of our primary building materials were reduced to half, if the variations in outward and inward form of the anatomy architectural, both ornamental and organic, were similarly reduced, there would still remain an overwhelming choice. In the selection and arrangement of that choice the artist-architect is still able to make such combinations and permutations as extinguish possibility of monotony at once from the imagination. No; the truth is that the present lack of coherence, needless multiplicity of form and dimension, has negligible æsthetic recommendation when balanced against its uneconomic and anti-rational effects. The steel casement manufacturers have shown the way. Steel windows are continually being improved upon as to durability, cost of upkeep, and design. How far would it be an exaggeration to say that the design of whole suburbs of houses has been dictated by standard steel window-frames? Manufacturers of standard steel windows have a responsibility and an opportunity for producing an article not only strong and durable, but as well-proportioned and well-designed as possible, in accordance with the best architectural principles. This is important, especially as the elevations of small houses depend in the main upon the proportions of their window openings. And these windows are standardized in the most thoroughgoing fashion. No needless multiplication of patterns here, no pointless and infinitesimal variations of size and shape.



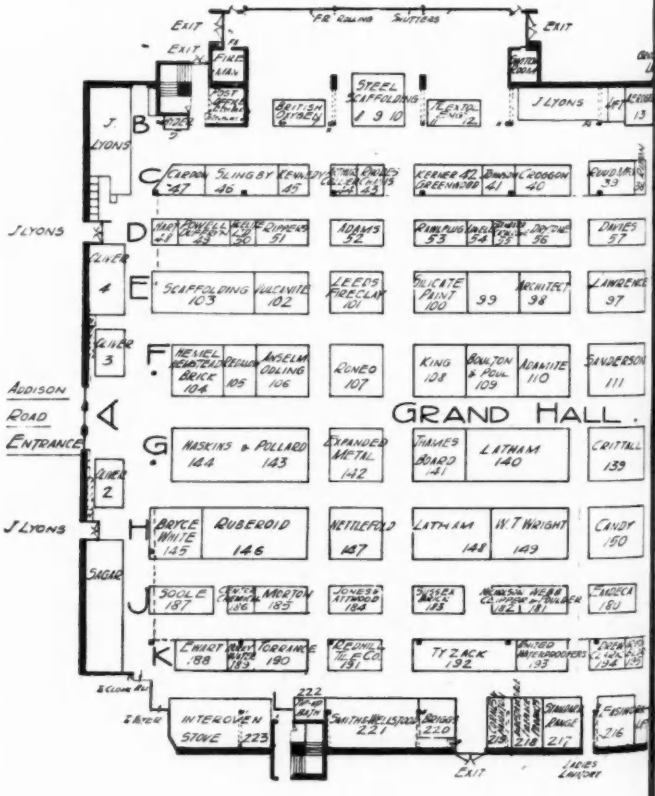
Mr. A. B. H. Colls, President of the London Master Builders' Association, will propose the vote of thanks to Lord Burnham.



Lord Burnham, who opens the Building Trades Exhibition today.



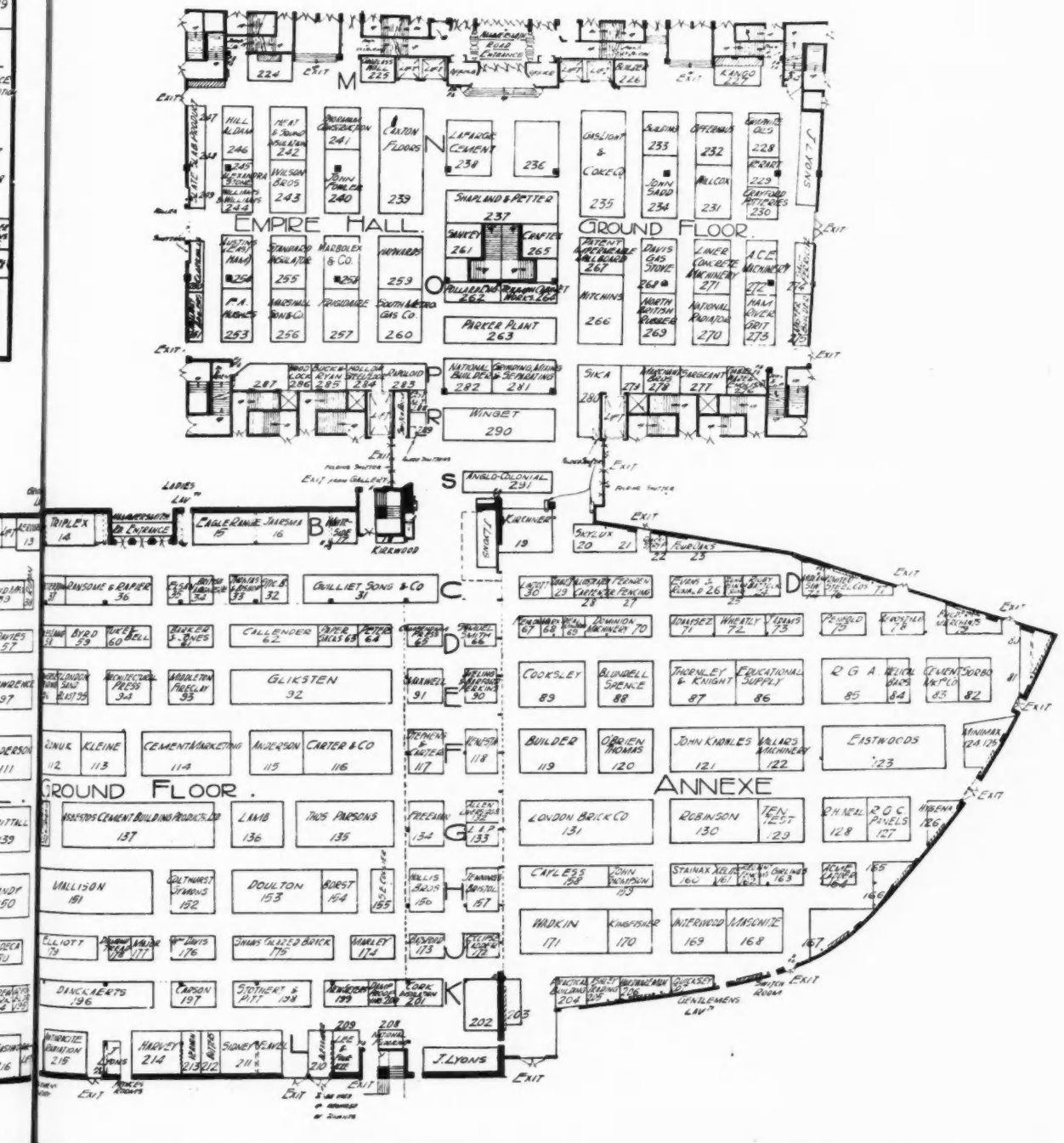




For list of Exhibitors see page 424.

BUILDING TRADES EXHIBITION

LAY-OUT OF THE STANDS



ALPHABETICAL LIST OF EXHIBITORS

	Row	No.
ABBEY ROAD BUILDING SOC.	Gal.	48
A.C.E. Machinery, Ltd.	O	272
Acme Patent Ladder Co.	H	164
Adamite Co., Ltd.	F	110
Adams and Son, Ltd., James	D	73
Adams, Robert	D	52
Adamsez, Ltd.	D	71
Adelphi Tracing and Planning Co.	Gal.	47
Aerograph Co., Ltd.	B	13
Aerostyle, Ltd.	D	78
Alexander & Co., Ltd., H.	L	210
Alexandra Stone Co., Ltd.	N	245
Allen-Liversidge, Ltd.	G	132
Anderson and Son, Ltd., D.	F	115
Anglo-Colonial Trading Cpn.	S	291
Anselm Odling & Sons Ltd.	F	106
Anthracite Radiation, Ltd.	L	215
"Architect and Building News"	E	98
"Architects' Journal"	E	94
Architectural Press, Ltd.	E	94
"Architecture"	F	119
Army Voc. Trng. Centre	Gal.	11
Asbestos Cement Building Products, Ltd.	G	137
Ashley Trading Co., Ltd.	K	205
Austins (East Ham), Ltd.	O	254
Aveling and Porter, Ltd.	E	90
BARKER AND JONES, LTD.	D	61
Barrus, E. P., Ltd.	Gal.	77a
Batsford, Ltd., B. T.	J	173
Beatl Sales, Ltd.	Gal.	34-35
Berry's Insulating and Building Products, Ltd.	Gal.	46
Binfield Brick and Tile Wks.	Gal.	76
Blanchards (Bishops Waltham), Ltd.	Gal.	18
Blundell, Spence & Co., Ltd.	E	88
Borough Polytechnic	Gal.	12
Boulton and Paul, Ltd.	F	109
Briggs and Sons, Ltd., Wm.	L	220
British Magnesite Flrg. Co.	C	34
British Oxygen Co., Ltd.	B	6–7
British Portland Cement Association, Ltd.	Gal.	67
Brixton School of Building	Gal.	36
Brown, Wm., and Son	Gal.	20
Bryce, White & Co., Ltd.	H	145
Buck and Ryan	P	285
"Builder, Ltd."	F M	119 226
"Builders' Merchants' Journal and Builders' Ironmonger"	E	79
"Building"	N	223
Building Research Station	Gal.	66
Building Trades Pr. Lab.	N	228
Burton Holt (Chelsea), Ltd.	Gal.	43
Butters Bros. & Co.	L	212
Byrd & Co., A. A.	D	59
CALLENDER & CO., LTD., G. M.	D	62
Candy & Co., Ltd.	H	150
Cardon & Co., Ltd.	C	47
Carson and Sons, Walter	K	197
Carter & Co., Ltd.	F	116
Caxton Floors, Ltd.	N	239
Cayless Bros. (Battersea)	H Gal.	158 86
Cement Marketing Co., Ltd.	F	114
Central Chemicals, Ltd.	J	186
Chadwick and Shapcott, Ltd.	G	138
Chaplain & Co., Ltd., A. E.	Gal.	9a
Clarkhills, Ltd.	O	250
Clarocit Co., Ltd.	Gal.	3
Cluse, Ltd.	Gal.	85
Colas Products, Ltd.	Gal.	55
Collier, Arthur	C	44
Collier, S. and E., Ltd.	H	155
Colt, Ltd., W. H.	Gal.	42
Colthurst Symons & Co., Ltd.	H	152
Compendium Publishing Co.	D	65
Contractors Plant, Ltd.	Gal.	58
Cooksley, A.	E	89
Cork Insulation Co., Ltd.	K	201
Cornes and Haighton, Ltd.	L	219
Coronet Brick Co., Ltd.	F	104
Council for Preservation of Rural England	Gal.	56
Cradnitt, Ltd.	Gal.	1a
Craftex, Ltd.	O	265
Crayford Potteries Co.	N	230
Crittall Mfg. Co., Ltd.	G	139
Croggon & Co., Ltd.	C	40
DAMP-PROOFING, LTD.	K	200
Danckaert's Woodworking Machinery, Ltd.	K	196
Daneshill Brick and Tile Works, Ltd.	Gal.	19
Davies Bros. (Timber and Joinery) (1928), Ltd.	D	57
Davis Gas Stove Co., Ltd.	O	268
Davis, Wm.	J	176
Defiant Enamelled Tile Co.,	M	224
Diamond Tread Co., Ltd.	J	178
Dominion Machy. Co., Ltd.	D	70
Doulton & Co., Ltd.	H	153
Drew, Clark & Co.	K	194
Druki Asbestos Flooring and Products Co.	Gal.	17
Drytone, Ltd.	D	56
Dry Rot and Fire Prevention Co., Ltd.	Gal.	75
Duport Foundries, Ltd.	Gal.	64
EAGLE RANGE & GRATE CO.	B	15
Easiwork, Ltd.	L	216
Eastwoods, Ltd.	F	123
Ebner, Jos. F.	N	237
Eclipse Rail-Track Ladder Co.	J	172
Educ. Supply Assoc., Ltd.	E	86
Elliott and Sons (Reading), Ltd., Samuel	J	179
Elsan Manufacturing Co.	C	35
Emdeca Metal Dec. Co., Ltd.	J	180
English Bros., Ltd.	P	276
Evans and Ronald, Ltd.	C	26
Evening Technical Institute	Gal.	1
Everlasting Tile, Concrete Products, Ltd.	Gal.	77b
Ewart and Son, Ltd.	K	188
Expanded Metal Co., Ltd.	G	142
FASTNUT	R	288
Federated Employers' Insurance Association, Ltd.	Gal.	52
Federated Employers' Press	P	282
Fenlon and Son	D	67
Fernden Fencing and Construction Co., Ltd.	C	27
Field and Palmer, Ltd.	Gal.	44
Figgett, F. C.	Gal.	32
Flavel & Co., Ltd., Sidney	L	211
Flexo Plywood Industries Ltd.	Gal.	43a
Flextol Engineering Co., Ltd.	B	11-12
Four Oaks Spraying Mch. Co.	B	23
Fowler & Co. (Leeds), Ltd.	N	240
Freeman, Sons & Co., Ltd.	G	134
Frigidaire, Ltd.	O	257
GABRIEL, WADE AND ENGLISH, LTD.	P	276
Gas Light and Coke Co.	N	235
Girlings' Ferro Concrete Co.	H	163
Gliksten and Son, Ltd., J.	E	92
Gliksten Doors, Ltd.	E	92
Goodlass Wall & Co., Ltd.	M	225
Grant and West, Ltd.	Gal.	38
Graphite Oils Co., Ltd.	N	228
Grinding, Mixing and Separating Co., Ltd.	P	281
Guilliet, Sons & Co.	C	31
HALLIDAY BOILERS, LTD.	O	251–2
Hammersmith School Bldg. and Arts and Crafts	Gal.	8
Ham River Grit Co., Ltd.	O	273
"Hardwareman and Builders' Merchant"	K	206
Harris & Sons	Gal.	68
Hart, H.	D	48
Harvey & Co. (London), Ltd., G. A.	L	214
Hawkins & Co., Ltd., L. G.	Gal	45
Hayward-Latona Engineering Co., Ltd., F. H.	Gal.	59
Haywards, Ltd.	O	259
Heat and Sound Insulation, Ltd.	N	242
Helical Bar and Eng. Co., Ltd.	E	84
Hemel Hempstead Patent Brick Co., Ltd.	F	104
Heywood Bros.	Gal.	6
Heywood, Ltd., John	Gal.	77
Higgs, Son & Co., Ltd.	Gal.	77b
Hill, Aldam & Co., Ltd., E.	N	246
Hoare, Ernest	Gal.	33
Hodkinson & Co., Ltd., W. S.	Gal.	14
Hollis Bros. & Co., Ltd.	H	156
Hollow Steel Floor Co., Ltd.	P	284
Hontsch & Co.	Gal.	30a
Hortitex Glass, Ltd.	Gal.	70
Hughes & Co., Ltd., F. A.	O	253
"Hurry" Water Heater Co.	K	189
Hyder & Sons	B	5
Hygena Cabinets Co., Ltd.	G	126
IDEAL WINDOW CO.	D	69
"Illustrated Carpenter and Builder"	C	28
Incorporated Association of Architects and Surveyors	Gal.	69
Indestructible Fireplace Products	L	218
Innes, Sons and King, Ltd.	Gal.	91
Interoven Stove Co., Ltd.	L	223
Interwood, Ltd.	J	169
"Irish Builder and Engineer"	K	195
Italian Marble and Tiles Importers, Ltd.	Gal.	39
JAARSMA, E. M.	B	16
Jarvis & Son, W. R.	Gal.	87
Jennings (Bristol), Ltd.	H	157
Johnson Bros., G.	C	41
Johnson, Robt. C.	Gal.	65a
Jones and Attwood, Ltd.	J	184
K.F.M. ENGINEERING CO., LTD.	Gal.	37
Kango Co., Ltd.	M	227
Kennedy, Wm.	C	45
Kerner-Greenwood & Co., Ltd.	C	42
Kestner Evaporator and Engineering Co., Ltd.	Gal.	73
King & Co., Ltd., J. A.	F	108
King, Ltd., Geo. W.	Gal.	91
Kingfisher, Ltd.	J	170
Kirchner & Co. (London), Ltd.	B	19
Kirkwood, Craig & Co., Ltd.	B	18
Kleine Patent Fire-Resisting Flooring Syndicate, Ltd.	F	113
Knowles & Co. (London), Ltd., John	F	121
LACY-HULBERT & CO., LTD.	Gal.	5
Lafarge Aluminous Cement Co., Ltd.	N	238
Lamb and Sons, W. T.	G	136
Laminated Wood Products, Ltd.	O	266
Lang, Jules (Nitaline), Ltd.	D	58
LAP (C.I. Process), Ltd.	G	133
Latham, Ltd., James	G H	140, 140a 148
Lawrence & Sons, Thos.	E	97
Lee and Fouracre	L	209
Leeds Fireclay Co., Ltd.	E	101
Liner Concrete Mach. Co.	O	271
Lintott, H. and E.	C	30
"Lionweld" Steel Flooring and Stairway Co.	Gal.	65
Liverpool Borax Co., Ltd.	E	91
London Brick Co. and Forders, Ltd.	G	131
London Sand Blast Decorative Glass Works, Ltd.	E	95
Lovell & Son, Y. J.	D	54
MAJOR, LTD., H. J. & C.	J	177
Mallinson and Sons, Ltd.	H	151
Marb-L-cote Distributing Corporation	Gal.	75
Marbolex	O	258
Marchant Bros., Ltd.	P	278
Marco Refrigerators (1929), Ltd.	Gal.	62
Marley Tile Co., Ltd.	J	174
Marshall, Sons & Co., Ltd.	O	256
Marx, E.	D	68
Masonite, Ltd.	J	168
"Master Builder"	O	275
Maxwell, Andrew	E	91
Metal Gravure Co., Ltd.	Gal.	51
Metlex Industries, Ltd.	Gal.	70a
Middleton Fireclay Co.	E	93
Midland Saw and Tool Co.	D	74
Millars' Machinery Co., Ltd.	F	122
Milton Hall (Southend) Brick Co., Ltd.	N	234a
Minimax, Ltd.	F	124-5
Moore's Modern Methods, Ltd.	Gal.	51a
Morton, Francis, Jun. & Co.	J	185
Municipal School of Arts and Crafts	Gal.	1
"NATIONAL BUILDER"	P	282
National Flooring Co., Ltd.	L	208
National Plywood Corporation, Ltd.	E	92
National Radiator Co., Ltd.	O	270
Nautilus Fire Co., Ltd.	O	268
Neal & Co., Ltd., R. H.	G	128
Neatex Curtain Rail Co.	Gal.	65a
Nettlefold and Sons, Ltd.	H	147
New Geysers, Ltd.	K	199
Nicholson and Clipper Co., Ltd., W. T.	J	182
"Noelite," Ltd.	D	50
North British Rubber Co.	O	269
Northern Polytechnic	Gal.	15
O'BRIEN THOMAS & CO., LTD.	F	120
Odling and Sons, Ltd., Anselm	F	106
Offerhaus & Co.	N	232
Old Lodge Estate (Purley)	Gal.	49
Oliver and Sons, Ltd., Wm.	A	2-4
Ostens (Byfleet), Ltd.	Gal.	30
P. AND S. ROAD MATERIALS TRANSPORT, LTD.	Gal.	58a
Paper Sacks, Ltd.	D	63
Parker, Ltd., Frederick	O	263
Parsons and Sons, Thos.	G	135
Patent Impermeable Millboard Co., Ltd.	O	267
Patent Tip-up Bath Co.	L	222
Pearce Sign Works	Gal.	72
Penfold Fencing, Ltd.	D	75
Peters, Ltd., C. A.	D	64
Phœnix Eng. Co., Ltd.	Gal.	63
Phormium Cavity Blocks, Ltd.	N	241
Plant Bros., Ltd.	Gal.	74
Pollard & Co., Ltd., E., and Haskins	G	143, 144
Pollard Eng. Co., Ltd.	O	262
Portman Building Society	Gal.	50
Potterton (Heating Engineers), Ltd., Thomas	C	37
Powell Duffryn Steam Coal Co., Ltd.	D	49
"Practical Building"	K	204
Preservation of Rural England, Council of	Gal.	56
Prodorite, Ltd.	Gal.	40
QUICKSEY CABINET MANUFACTURING CO.	K	207
Quickstryp Chem. Co., Ltd.	B	22
R. G. C. PANELS, LTD.	G	127
Ransomes and Rapier, Ltd.	C	36
Rapoloid	P	283
Rawlplug Co., Ltd.	D	53
Redalon, Ltd.	F	105
Redhill Tile Co., Ltd.	K	191
Reliant Fencing Co., Ltd.	H	162
Rhodes Chains, Ltd.	C	43
Rigby Battcock, Ltd.	C	24
Ripon Steel Co., Ltd.	C	38
Rippers, Ltd.	D	51
Robinson and Son, Ltd., Thomas	G	130
Roneo, Ltd.	F	107
Ronuk, Ltd.	F	112
Rubber Growers' Association Inc.	E	85
Ruberoid Co., Ltd.	H	146
Ruud Mfg. Co., Ltd.	C	39
SADD AND SONS, LTD., JOHN	N	234
Sagar & Co., Ltd., J.	A	1
St. Margaret's Technical Press, Ltd.	N	233
Sal-Ferricite and Trading Co., Ltd.	O	274
Sanderson and Sons, Ltd., A.	F	111
Sankey and Son, Ltd., J. H.	O	261
Sargeant, E. F.	P	277
Savework, Ltd.	Gal.	76a
Scaffolding (Great Britain), Ltd.	E	103
Scientific and Industrial Research	Gal.	66
Shapland and Petter, Ltd.	N	237
Shaws Glazed Brick Co., Ltd.	J	175
Sika, Ltd.	P	280
"Silent House"	Gal.	78-82
Silicate Paint Co., Ltd.	E	100
Skylux, Ltd.	B	20, 21
Slate Slab Products, Ltd.	N	247-9
Slingsby, H. C.	C	46
Smeed, Dean & Co., Ltd.	Gal.	76
Smith and Sons, Ltd., Samuel	D	66
Smith and Wellstood, Ltd.	L	221
Smith, Sidney	Gal.	7
Somerset Trading Co., Ltd.	E	96
Soole and Son, Ltd.	J	187
Sorbo Rubber Sponge Products, Ltd.	E	82
Southend-on-Sea Evening Technical Institute	Gal.	1
South Metropolitan Gas Co.	O	260
Stainax Co.	H	160
Staines Kitchen Equipment Co., Ltd.	K	202
Standard Catalogue Co., Ltd.	D	55
Standard Insulator Co., Ltd.	O	255
Standard Range and Foundry Co., Ltd.	L	217
Steel Scaffolding Co., Ltd.	B	8-10
Stephens and Carter, Ltd.	F	117
"Stic-B," Ltd.	C	32
Stothert and Pitt, Ltd.	K	198
Sugden & Co., Ltd., W. H.	Gal.	57
Sussex Brick Co., Ltd.	J	183
T. AND C. ASSOCIATED INDUSTRIES, LTD.	Gal.	90
Tella Co., Ltd.	K	203
Tentest Fibre Board (1929) Co., Ltd.	G	129
Thames Board Mills, Ltd.	G	141
Thomas and Bishop, Ltd.	C	33
Thompson, A.	Gal.	61
Thompson Beacon Windows, Ltd., John	H	159
Thornley and Knight, Ltd.	E	87
Tibbett, Wm. J.	C	29
Torrance and Sons, Ltd.	K	190
Tottenham Polytechnic	Gal.	10
Trades Training Schools of the Worshipful Company Carpenters	Gal.	29
Triplex Foundry, Ltd.	B	14
Triumph Cabinet Wks., Ltd.	O	264
Tuke and Bell, Ltd.	D	60
Turnbridge Manufacturing and Supply Co., Ltd.	Gal.	53, 54
Turrell's Portable Building Works	Gal.	83
Tyzack and Son, Ltd., S.	K	192
UNITED SPONGE CO.	H	165
United Steel Companies, Ltd.	D	76, 77
United Waterproofers, Ltd.	K	193
Ure, Allan & Co.	Gal.	84
Urquhart Morgan, Ltd., G.	Gal.	71
VENESTA, LTD.	F	118
Verart, Ltd.	N	229
Vernon, Ltd., R.	L	213
Vigers, Sons & Co., Ltd.	Gal.	16
Vulcanite, Ltd.	E	102
WADKIN & CO.	J	171
Wandsworth Technical Inst.	Gal.	31
Watco, Ltd.	K	193
Watsons Water Softeners	Gal.	9
Webb and Foulger (Brush Manufacturers), Ltd.	J	181
Westmorland Green Slate Quarries, Ltd.	E	83
Wheatly & Co.	D	72
White, Sons, Ltd., Thos.	Gal.	60
White Tile Heaters, Ltd.	Gal.	13
Whiteside, Ltd., W. E.	B	17
Willcox & Co., Ltd., W. H.	N	231
Willesden Polytechnic Day School of Building	Gal.	4
Williams and Williams, Ltd.	N	244
Wilson Bros. (Leeds), Ltd.	N	243
Wilsons Twinflex Tile Machine Co.	Gal.	2
Winget, Ltd.	R	290
Woodlock Agents (England), Ltd.	P	286
Wovenboard Wood Panelling Co.	H	154
Wright & Co., Ltd., W. T.	H	149
XELITE PLASTER CO., LTD.	H	161
YOUNG, OSMOND AND YOUNG, LTD.	C	25

THE SILENT HOUSE

DESIGNED BY A. TRYSTAN EDWARDS

THERE are several reasons why the organizers of the Building Trades Exhibition make a special feature of the Silent House. In the first instance, the problem of noise has come upon us suddenly and is getting rapidly more urgent. Secondly, the effects of noise are serious and result in a loss of health and efficiency. And in the third place, architects, builders and members of the general public are all interested to see modern methods of combating noise.

Householders disturbed by factory noise, or traffic noise, or by drilling, or riveting; men and women disturbed by stentorian concerts in neighbouring apartments; school teachers who find their year's work slowed up by the interference of street noises which penetrate into the classrooms—all have a grievance against the twentieth-century conditions which are responsible for this nuisance. It is doubtful, however, if these people suspect how much noise affects them in their daily lives. Physicians from the earliest times have known that noise is especially injurious to invalids and convalescents. In an industrial civilization such as our own there are many who are ill, many more who are not ill but are without great physical resistance—young children, aged men and women, those who are not properly nourished, those who are exposed to particularly hazardous occupations—and noise is often the last straw that breaks the camel's back, the determining factor of physical and mental health.

Yet not until recent years have scientists turned their attention to the effects of noise on human beings. Ten years ago there were listed twenty-five definitely noisy trades, the noise in most instances being the results of machinery in the factory. To-day, however, the greater part of the noise nuisance is caused by the traffic in the streets, which has increased so enormously in recent years. Although this does not actually cause deafness, as in the so-called noisy trades, it has been shown to effect people in a subtle way, whether they are conscious of it or not. Experiments have proved that it affects them at their work, although they may go on with their task and get it done somehow. And it has also been established that noise affects people in their sleep, whether or not they are awakened by it.

It is significant that the demand for industrial efficiency revealed the extent to which noise can interfere with the activities of apparently healthy people. It is recorded that when comparative tests were made computing the relative amount of work performed by operatives in an English factory under the conditions of noise and of quiet, a group of men working next to a boiler-shop was found to produce as many as sixty imperfections in assembling eighty temperature regulators. Removed to a quiet place, the same group was found to assemble 110 regulators in the same time as it had formerly taken them to assemble eighty, and with only seven imperfections. In another instance it was suspected that a low output in a factory was due to the noise of an electric fan. The fan was stopped and production jumped 12 per cent. in spite of the poor ventilation. It has also been demonstrated that in a noisy hotel kitchen the breakages in washing up dishes were reduced by 50 per cent. after careful elimination of noise and disturbance.

These instances especially appeal to the commercial mind, but they may be supplemented by others which concern the average man more closely. In the noisy office or private dwelling the interruption to work or rest is obviously injurious to the health of those who suffer from it; while during the daytime the noise nuisance is most apparent in its interference with conversation. To strain one's ears in order to ascertain what the other person is saying is very fatiguing, and, moreover, considerable time is wasted in asking for repetitions of words already said.

The men who are striving to attain the solution of this problem of noise, whether they be scientists in the laboratory or manufacturers of building materials designed to exclude noise from human habitations, are doing a most useful and necessary work. There are two noise problems, namely, the external and the internal. In the case of internal noise the room in which we are working or resting is the unit to be considered. Noises arising within that room are internal and can only be remedied by sound absorption of the room itself. This is in part accomplished by walls and ceilings of specially constructed material, and by heavy carpets and upholstery. The noise which is external to the room, such as noises in the street or the next apartment, can only be remedied by sound-proof walls, floors and windows. This is prevention of sound transmission and must not be confused with sound absorption.

It was not an easy matter to plan a suite of rooms in a public exhibition hall in such a manner that there could be free circulation through each of them while at the same time providing facilities for testing the sound-resisting qualities of the walls. The L.C.C. regulations for fire escape necessitate permanently open doorways, so it was only possible to test the walls by planning cubicles adjacent to all the rooms which have the quality of sound boxes; noises can be made in these cubicles so that visitors to the exhibition are enabled to judge in what degree the occupants of the various rooms are exempt from the effects of such noise. Architects will find it profitable in the exercise of their profession if they can spare time to examine the various sound-resisting materials which are here exhibited.

The Silent House comprises a series of rooms planned and devoted to the display of sound-resisting materials manufactured by a number of British firms. In each room sound-tests may be applied to the partition walls and ceilings, and visitors will be able to judge of the sound-proof qualities of specially constructed partitions of insulating bricks and blocks, thatchboard, fibre-board, mill-boards, plywood, and other materials. The following firms participated in the construction: Venesta, Ltd., Patent Impermeable Millboard Co., Ltd., Tentest Fibre Board Co., Ltd., London Brick Co. and Forders, Ltd., J. H. Sankey and Son, Ltd., Heat and Sound Insulation, Ltd., Kleine Patent Fire Resisting Flooring Syndicate, Ltd., The Standard Insulator Co., Ltd., Crittall Manufacturing Co., Ltd., Troughton and Young, Ltd.



Plan of the Silent House, Olympia.

E

ELECTRICITY IN MODERN LIFE

BY WARWICK HOLMES

Although nearly every architect nowadays has more than a superficial knowledge of electric cooking, water heating, and refrigerating equipment necessary to electrically-operated houses, the value of other switch-operated and motor-driven appliances needs emphasis. Architects must make provision at an early stage in planning for the fullest utilization of electrical conveniences.

THE bare possibility that people should bring machinery into their *soi-disant* modern homes, only to find, either that they cannot use it or that they must stop using one appliance in order to provide power connections for another, is one that the architect will do well to prevent. This he can only do by intelligent anticipation of the miscellaneous power needs of his clients, by providing for a sufficiency of plug-points to which the power-driven apparatus may be connected, and by planning the room spaces so that they may conveniently house the large types of appliance.

A further step might well include a more general application of the " built-in " principle, particularly in properties built for selling and not letting. Sinks, baths, wash coppers and cooking ranges are usually provided as integral parts of the house. Why not give, in addition, built-in electric washers, ironers, clothes dryers, washing-up machines, and refrigerators?

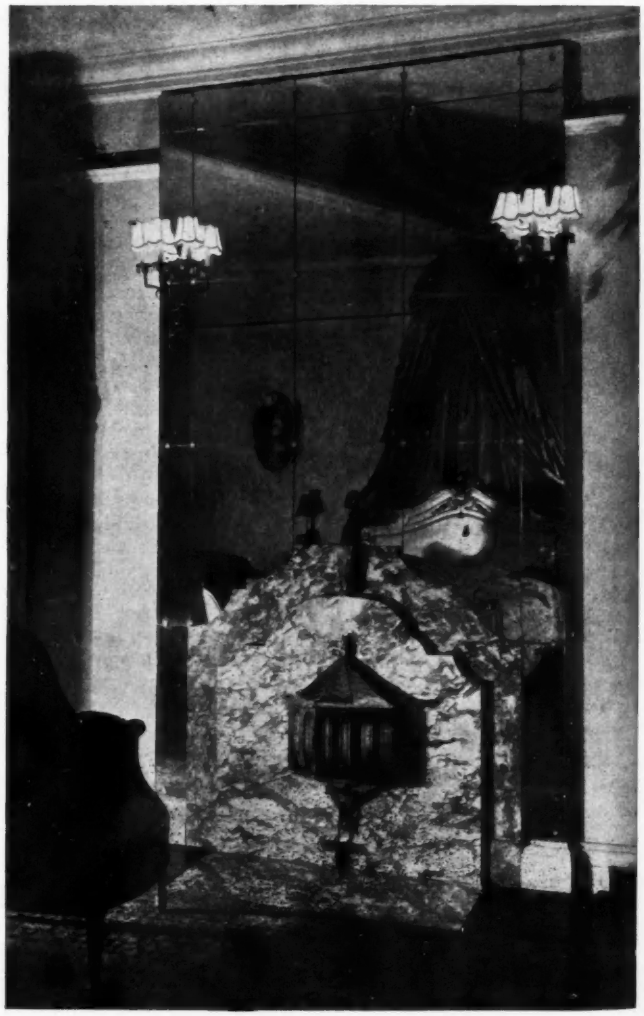
In order to plan the work department of houses and flats to the best advantage, an architect must be familiar with the following principal electrical appliances for which to provide accommodation. Clients will often seek advice on the choice and use of this equipment.

Usually accommodated in or near the kitchen, a popular domestic appliance is the electric suction cleaner, which finds employment in every room of the house. Despite its familiarity, there are thousands of homes doing without it because there are no proper plug-points to feed it with electricity, and other thousands where it is " hitched-up " to inconveniently situated sources of power supply, whereby its easy operation is hindered. Every room requires at least one plug-point at skirting-board level to permit proper suction-cleaner service.

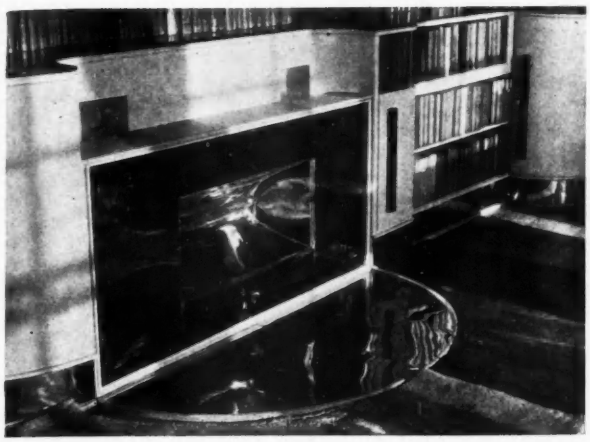
Several types of these appliances are made. There is the all-suction cleaner, the suction cleaner with the motor-driven brush, and the machine with the friction-driven brush. There are also different types of brush : straight and screw-shaped, stationary and revolving. The choice between types is not material, and obviously depends largely on individual requirements and predilections. What is of importance is that there should be enough plug-points to enable the cleaner to be used in every part of the room.

In large town and country houses the cleaning problem is best overcome by installing a stationary motor-driven dust-suction plant, and by providing piping to all parts of the house. Hose connections are fixed in the principal rooms, corridors and staircases, and these enable not only floors and carpets, but also upholstery, curtains, bedding, walls, cornices, and even clothing to be cleaned with the minimum of effort. In smaller houses a semi-stationary equipment is often used, the cleaner in this case being connected by a short length of flexible hose to fixed piping, which is run to all parts of the premises. The machine can be placed in a basement or in an under-stairs cupboard. In smaller houses one connecting point on the ground floor, generally in the hall, and one on the landing, will usually meet most requirements if provided with about 30 ft. of flexible suction hose. The fixed piping necessary for installations of this kind varies in size from 2 ins. up to about 6 ins. bore, according to the number of operators using the system. These sizes may seem large, but trouble is often experienced with small-bore piping, due to chokages caused by pins, matches and other solid litter.

The ordinary domestic-type cleaner is never used as much as it should be unless architect and electrical contractor have planned to make special provision for it. The less preliminary work there is in getting the cleaner on the job, the more frequently will it be used. Bearing this in mind, it should be planned at floor-level in a cupboard, or in some equally accessible spot



An electric fire in chromium plating on a marble surround placed against a mirror backing. Designed by Basil Ionides.



An electric fire in a stainless steel setting. Designed by Easton and Robertson.

where it can be wheeled out whenever necessary and started into action. If possible, there should be a plug-point provided on a wall inside the cupboard, at about the level of the cleaner handle; if there is also fixed on the wall a large hook where the flexible cord of the cleaner may be loosely coiled and hung, use will be further facilitated. When a cleaner is kept ready for action like this, many a quick clean-up job may be done that otherwise would be shirked in the day's routine.

Parquet and hardwood floors can also be polished with some makes of cleaner to which a special attachment can be fitted. Otherwise, special machines which plug into wall sockets are used.

Next to the task of dust and dirt removal, that of dish-washing is one of the most irksome. Electric power can do the major part of this unpleasant job. It has not proved popular in this country, because people have expected too much of it. Obviously, it will not remove the dirty glass, china and plate from the table and scrape and arrange it ready for washing; nor will it replace the washed utensils on their shelves. It will, however, wash, rinse and dry all table utensils in an entirely satisfactory manner.

Electric dish-washers are of two types, stationary and portable. The first-named particularly concern architects and builders, since they are built in beside the kitchen sink or are a part of it. They save individual faucets, and empty into the drain by the simple opening of a trap. The portable type of dish-washer is usually purchased by clients who rent their houses. It has to be separately connected to the plumbing to permit drainage, and is filled and emptied by hand.

A portable type which is a satisfactory compromise is equipped with a swinging and detachable arm, the latter being a combination inlet and outlet pipe. This may be swung into position directly under the hot-water tap, permitting the washer to be filled without any lifting. The amount of water admitted is controlled automatically, any excess flowing out immediately through an ejector pipe. This same pipe serves to empty the water after the dishes and utensils have been washed, the draining being accomplished automatically by the ejector.

In the home laundry, where electric washer, ironer and dryer are installed, there should be proper provision for lighting and for electrical connection of the equipment. This lighting plan should be flexible, permitting lights to be turned on and off with ease as they may be required in different parts of the room. The ironing board should be supported on a metal wall-bracket which leaves the other end of the board entirely open. A table should be provided with strong castors, and a bench similarly equipped is useful for moving heavy baskets of clothes.

A very useful and therefore important electric-power application is in the ironing of clothes. In most homes, even when most of the laundering is sent out, a hand-iron is necessary. Care should be taken in the placing of the plug-point to which the electric iron is connected, so that it shall be at a convenient height and close to the place where the right-hand end of the ironing board or ironer will be placed. This position should enable the operator to be near a window, and should be in close proximity to a light source which will throw strong shadowless light on the work. As a refinement, the plug-point may have a red indicator lamp which remains alight until the current is switched off.

Where the whole of the washing is done at home, an electric ironer is a most useful appliance. This machine consists essentially of a padded roll, varying in length from 26 ins. to 30 ins., which corresponds to the ironing board. This roll is revolved by power supplied by an electric motor, and is controlled by the operator by a slight touch of either hand, foot or knee. Accompanying the roll is a small metal "iron" shaped to fit exactly over the roll, and hinged and adjusted so that it can be raised and lowered at will. This iron or "shoe" is heated by electricity to the correct ironing temperature. When ironing, the operator spreads the article on the roll and starts it moving with the heated shoe lowered. The shoe then remains stationary, while the moving roll carries the work swiftly across the hot iron to be smoothed, dried and burnished.

The planning of electric kitchens and the choice of equipment is continually concerning architects, and information on electrical appliances may therefore be of service. More of these are available every year, and all help to make the task of cooking less laborious. There are light-duty mixers for whipping eggs, cream, etc., and appliances for kneading and blending stiffer mixings such as batters, dough and cake mixings. None of these devices occupy much horizontal space, and most are normally used on a kitchen table or cabinet. The mixing is done by blades, wire whisks or curved sections of metal. These appliances are driven by a small electric motor.

One of the most comprehensive of these portable devices is accompanied by a separate motor, to be connected up to several different tools. It will drive a small kitchen fan which accompanies it, and it will run a beater, a buffer for polishing silver, and an emery wheel for sharpening knives. The same motor may be used to drive a sewing machine. More elaborate devices include attachments which break ice and freeze ice-creams, an oil-dropping device for use in mixing mayonnaise, a juice extractor, vegetable pulper, grater, and bacon slicer. A separate motor-driven freezer for ice-cream and an electric coffee-grinder are other mechanized servants.

The standard and familiar type of electric fan will do a great deal to stir up and freshen devitalized air, but the use of fans is much more effective when the ventilation system comprises an exhaust fan to draw off the stale air. In addition to the problem of providing fresh air for health reasons, the nuisance caused by cooking smells and smoke is very acute and no fault of the cook. More often than not, the opening of kitchen windows to blow out cooking smells only results in blowing them in through the rest of the house. The smoky, greasy residue settles into curtains, clothes and upholstery. The accumulations of cooking grease which can be observed on kitchen walls and woodwork are not confined to that room, and, if looked for, may often be detected in other rooms. To avoid this,

it is only necessary to fit a single exhaust type ventilating fan, for if this is properly arranged it will move the entire air contents of a house.

It is obvious that when air is forced out of any room, other air will take its place. Therefore, the action of a suction fan which draws the air from one room must eventually result in drawing the air from the other rooms—if doors are arranged to facilitate this. Fresh outside air is simultaneously given ingress by a moderate opening of windows in other rooms. The value of ventilating fans is exceptional in stormy weather, when it is impossible to have many windows open. By running the ventilating fan at low speed and having one room window open a few inches from the top, the house can be filled with air freshly washed by rain or snow.

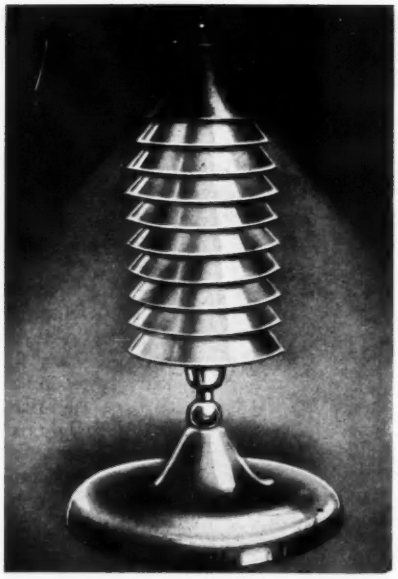
The type of fan under review is generally mounted in the kitchen, since this is the place where most of the smoke and smell originates. It can be had mounted on a panel which fits in the upper sash of a window, but the best form of installation is one in which the fan is mounted in a box-like fitment, which is built into the wall and shuttered or louvred on the outdoor side. Some types of ventilating fan are reversible, so that they may be used for drawing in air when desired.

In addition to ventilating fans, there is use for the smaller types of desk or bracket fans. An efficient and comfortable installation consists of one fan for every room in the house, mounted permanently on its own wall-bracket and controlled by a wall-switch. Its colouring and finish may be made to harmonize with the decoration and furnishings of the room. For most reception and bedrooms oscillating fans are more satisfactory than the older form of stationary pedestal. The sweep of air from oscillating fans is thrown completely round the room. It thus covers a greater effective area and prevents draughts. When non-oscillating fans are used, their breeze should be directed towards the ceiling.

It is useful to remember, and to remind clients, that electric fans can be employed for a variety of purposes besides their best-known function of keeping rooms cool. They can be used to hasten the drying of paint or of washing hung indoors to dry. They make quick work of drying fruits and vegetables, and discourage the entrance of flies and other insects. Butchers' and fishmongers' premises should always be provided with plug-points for the use of fans. In winter an electric fan directed against a radiator speeds up the radiation of heat. Placed in front of a "sulky" coal-fire, it will start a draught which will soon promote bright burning. The cost of running is very low, the current consumption being one unit for every ten to fifteen hours.

Electricity will run sewing machines economically at home and in manufacturers' workrooms. The machines do not differ from hand or foot-operated types except that the drive is from an electric motor. Standard 5-amp. wall sockets will provide current service, and foot-operated switches are part of the motor attachment equipment.

A reliable electric bell or signal system is obviously essential in every house,



A lamp which throws out heat as well as light. Designed by A. F. Berry.

hotel, club, or other premises where service is provided. In places where an alternating current supply of electricity is not available, the bell system is operated by primary batteries such as the Leclanché and dry cells. When an alternating current supply is provided in the building, the bells are best operated by connection to the mains. Since only a very low voltage—usually about 2 or 3 volts—is needed to operate them, a special bell transformer is connected between the mains and the bell wiring. Cheap and needing no attention, this little instrument is much more effective in use than primary cell installations.

To avoid the necessity of running bell wiring round the house on staples attached to the walls, architects should see that electrical contractors make provision for bells during the erection of the building. This is frequently overlooked. A good method is to run the wires in light socket-joint tubing, generally of zinc, fixed to the walls beneath the plaster.

In these days of greater efficiency in hotel management, it is interesting to architects to study innovations which improve service and reduce the nervous irritation of needless noises. Mr. Arnold Bennett, in referring to hotel bells and their horrors, once wrote: "No bell ought ever to be heard by any visitor to any hotel." Visible signals are by no means a monopoly of aircraft industry, but are an established fact in modern hotel planning, especially in Germany.

There are now many progressive hotels installed with the coloured-lamp system of "signalling"; valet, chambermaid or waiter can be summoned by the switching-up of blue, yellow and white lights. Projecting at the corner of every corridor are triple branches of lamps which guide the staff to the corridor from which the "bell" has been rung. Finally, a light over the door of the exact room indicates where the service is required, and is then instantly extinguished by the maid or waiter. The system not only obviates noisy bells, but, since a cluster of lamps is always within sight everywhere, saves endless footsteps backwards and forwards to the indicator in the service rooms.

In private houses, flat buildings and office blocks of suitable size, the possibility of installing electrically-operated lifts will obviously have been considered in the drawing-board stage.

In the earlier days when electric lifts demanded the constant attendance of an operator, many people were obliged to do without them, but now that reliable and easily-controlled passenger elevators are available, which can be operated entirely by the passenger, there is greater scope for their use. These lifts are provided with safety devices which entirely eliminate the possibility of opened gates on landings.

Some Continental lift-makers have evolved continuously-moving lifts consisting essentially of a series of lift cages mounted on a revolving mechanism. The distance between individual cages is occupied by a shutter which prevents anyone from falling down the shaft or becoming entangled in the machinery. The speed of operation is arranged to give ample time for stepping into the cage as it rises or descends.

Another direction in which foresight about electrical equipment can avoid unnecessary interference with internal decorations is in the installation of telephones. It will be found that the Post Office authorities are anxious to co-operate in this matter, and, if given an advance notification of contemplated constructions and of the proposed development of estates for building purposes, will arrange to do the internal wiring during construction.

There are many power applications of

electricity in office and commercial buildings similar to those domestic utilities referred to previously. Suction-cleaner installations resembling those recommended for use in large country houses are usually employed.

An important function achieved by electrical means in large buildings, warmed by central heating from coke or oil-fired boilers, is attention to and control of the combustion. Where a coal-fired furnace is used for central heating, an electric motor and an electric blower fan together feed fuel to the fire and set up a forced draught. The latter ensures even burning and automatically clears out the ashes, dropping them into a suitable receptacle.

Electricity has also made the oil burner into a satisfactory appliance, capable of operating efficiently with any type of heating plant—steam, hot water, or hot air.

Electricity combined with the rapid adoption of oil fuel has enabled a fully automatic oil burner to be produced which, it is claimed, will maintain any desired temperature throughout the building without any attention, noise, soot or smoke, and eliminate the dirt and dust in dealing with the ashes.

When the Government scheme for providing electric power is complete there is bound to be a demand for wiring and appliances on a scale hitherto unprecedented. There can be no doubt, however, that if the wiring of houses, farm-buildings, factories and workshops, and the distribution of equipment are to be carried through on a really large scale, as they must be if the Government scheme is to be a success, then financial facilities must be made available. There will be a great need for credit, and one firm has already formulated plans for hire-purchase transactions and for sales by deferred payments. In each case the plan provides for the instalments either to be collected by the firm who have devised the credit scheme or by the suppliers of the electrical equipment.

NOTABLE EXHIBITS: i

THE ARCHITECTURAL PRESS cordially invite all architects and readers visiting London for this exhibition to pay a visit to their Stand No. 94, Row E, where a complete range of all their publications will be found. The stand, which has been designed by Professor A. E. Richardson, F.R.I.B.A., is specially arranged to enable visitors to glance through the various publications at their leisure and in comfort without being disturbed by people passing from one stand to another. In addition to the well-known periodicals, THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, and SPECIFICATION, there will be on view all the new books such as *Modern Architectural Sculpture*, by William Aumonier; *Modern French Decorative Art*, vol. ii; *Elements of Domestic Design*, by A. J. Penty; *Architectural Shadow Projection*, by J. M. Holmes; *Mouldings of the Tudor Period*, by Small and Woodbridge; *Isometric Drawing of St. Paul's Cathedral*; and *The Ancient Bridges of the South of England*, by E. Jervoise, published on behalf of the Society for the Protection of Ancient Buildings, together with many others of interest alike to the architect, student of architecture, and all concerned in building and interior decoration.



A ceramic panel in Shaws faience.

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THE ADAMITE CO., LTD. (Stand 110, Row F), have on view "The Spirit of the Rocks," a statue by Doyle-Jones (cast in Atlas White, and first exhibited on their stand in 1924) which, after six years in the open, buffeted by the elements, gives testimony to the permanence of the whiteness of Atlas. Those interested in non-slip treads and flooring, whether from a colour decorative, utilitarian, wear-proof or other point of view, will find the possibilities of Alundum non-slip treads demonstrated in an original manner in the form of a staircase of fifteen steps, in five series of three each. Every step shows a different aspect of the material, in the form of tiles in seven possible colourings, ceramic mosaic tiles, a number of terrazzos in which Alundum is incorporated and cement granolithic in which Alundum aggregates are employed, with risers in marble and stainless steel as well as terrazzo and granolithic. The visitor is by this means given a vision of every possible treatment and price, whether he has in mind a palace, a factory or a slaughterhouse. Colemanoid, the liquid waterproofing and hardening compound—for concrete of all sorts—is also shown.

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For some time past SHAWS GLAZED BRICK COMPANY, LTD., have been developing their material with a view to its use for interior decoration, and after a long period of experience and research they have now succeeded in producing it in many new and interesting forms. Their stand (Row J, 175) has been designed by ceramic artists, and the whole design, together with the treatment of the material, is a unique feature of the exhibition, and should not be missed by any visitor who wishes to be conversant with the latest developments of materials for interior decoration.

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The exhibit of the GAS LIGHT AND COKE COMPANY (Stand 235, Row N) is designed to emphasize the necessity for carcassing all new houses with pipes of adequate size, so that the gas supply is available at convenient points to allow for the installation, with the least difficulty, of all gas appliances that are likely to be required by future occupants. The stand has a number of recesses which contain either indivjdual gas- or coke-fired appliances, or sections of model kitchens, dining-rooms, drawing-rooms, bedrooms and bathrooms equipped with approved gas appliances such as all-enamel cookers, thermal storage gas water heaters, refrigerators operated by gas, wash-coppers, washing machines, gas irons, clothes-drying and airing cabinets, gas fires, central heating apparatus, gas-lighting fittings of modern design with switch control and the like. Considerable space is set

apart for the display of the new thermal storage gas water heaters, which, on account of their high efficiency and remarkably low running costs, are now being installed in very large numbers in housing schemes, housing estates and private houses throughout the country. A new development in this direction is a small and very economical gas-fired water-heating unit, somewhat similar to that used in the thermal storage gas water heaters, for connecting up to the ordinary hot-water storage cylinder. It can be used advantageously for heating the water in the household circulating system during the summer months when the heat given out in the kitchen or scullery by a coke-fired boiler may be more than is desirable.

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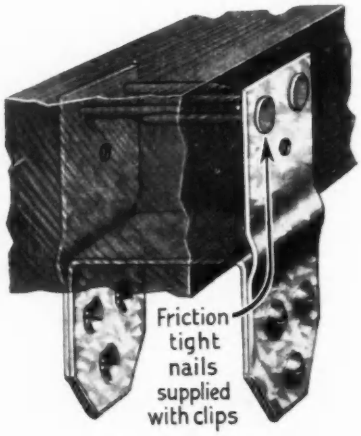
ALLEN LIVERSIDGE, LTD. (Row G, Stand 132), exhibit their oxy-acetylene and acetylene apparatus for welding and metal-cutting and lighting. The lighting equipment includes Alda lights (dissolved acetylene flarelights which are claimed to be storm-proof and can be turned on or off simply by giving the valve on the cylinder a twist and striking a match) and imperial light (low pressure acetylene flarelights employing a generator). The former light enjoys a very considerable popularity. Alda oxy-acetylene welding and metal-cutting equipment, employing oxygen and dissolved acetylene in cylinders, are portable and can be used in places relatively difficult of access. This is of particular importance where cutting operations are concerned. Of interest also are the Alda oxy-acetylene lead-burning outfits. With these small portable outfits a good stiff and hot flame enables the operator to carry out very intricate lead-burning work in all positions at great speed. This process is being used increasingly by architects for lead work on buildings.

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REDALON, LTD., are exhibiting on Stand 105, Row F. The firm's Bull Dog floor clips are used for anchoring joist and wood floors to fireproof floors. By using them it is not necessary to use a "fill" or to plug the floors, and they are claimed to ensure solid wood floors which will not creak. Photographs are shown of Bull Dog floors, such as the Auction Rooms at Spitalfields Market; Film Studio for British Talking Films at Wembley; Berkeley Court at the corner of Marylebone Road and Baker Street, and the Shakespeare Memorial Theatre at Stratford-on-Avon. Sections of floors are on view, demonstrating the Bull Dog method of construction for solid concrete floors, hollow tile floors, and continuous beam floors. Redalon liquid, another speciality of the firm, is made in two grades. Redalon grade A is used for removing the cement skin from the face of poured concrete buildings, thus exposing the aggregate beneath. Numerous panels are on view showing the effects which can be obtained with some of the aggregates which are more easily procurable. Redalon grade B is used for obtaining a key for bonding cement or plaster renderings to concrete, without the necessity of hacking or using other mechanical means. Examples of various renderings bonded to Redalon-treated concrete slabs are shown. A special



Concrete surface treated with Redalon grade A.



A Bull Dog floor clip.

slab is on view to demonstrate the Redalon method of bonding renderings to ceilings where heating panels are employed. Progress photographs of more recent contracts where Redalon has been used are on view. These include Thames House, Millbank; Middlesex County Council School at Hanwell; Daily Mirror Building, Back Hill, E.C.; Dominion Theatre, Tottenham Court Road; Queen Mary's Hospital at Carshalton, etc.

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The Caxton hollow tile reinforced concrete floor, exhibited by CAXTON FLOORS, LTD. (Row N, Stand 239), has been used on many important buildings, erected in all parts of the country, from the designs of the most prominent architects. These buildings include every class of structure up to the heaviest types of warehouses and factories. The special hollow tiles employed in the floors are made from dense quarried clay and form continuous parallel voids running the whole length of the floor. This, it is claimed, gives the most effective heat- and sound-insulating qualities. It is claimed that the floors offer great resistance to fire, and that the speed of construction and the reduction of dead weight enable considerable savings to be made. Erected *in situ*, Caxton hollow tile, reinforced concrete floors, standard type, are laid on temporary timber centering and constructed *in situ* simultaneously with the haunching and fireproofing of the steel girders. The firm provide, erect and strike the centering, together with the formwork necessary for haunching and fireproofing the girders. The methods employed by the firm enable the whole of the centering to be struck in four to five days after the placing of the concrete. The soffit of the floors and roofs is left in good condition to receive ceiling plaster, the underside of the hollow tiles being roughened. Concrete is placed between and over the hollow tiles and the surfaces of the floors are finished with a spade face or rough screed, sufficient concrete being laid over the hollow tiles to comply with the district fireproofing regulations. Where practicable, the firm design their floors with reinforcement, continuous from bay to bay, thereby making possible the thinnest and lightest construction and knitting together the entire building. When required, the firm also design and construct reinforced concrete staircases ready to receive tread and riser finishings. The firm carry out all work with their own materials and hoisting tackle, only requiring to be accommodated with a convenient supply of water.

*

The stand of MASONITE, LTD. (Row J, Stand 168), is constructed entirely of Masonite products, *i.e.* Presdwood insulation board and quartrboard. The interior is arranged to exhibit all the varied uses of these materials in the field of building and architectural design. There are three ceiling sections—1: To exhibit the application of plaster on Masonite insulation lath in lieu of wood lath; 2: to exhibit the natural use of Masonite insulation board for a decorative ceiling; 3: to exhibit the use of quartrboard distempered for ordinary ceilings. The wall sections show various decorative treatments of Masonite products, with paints, varnishes, distempers, etc., also various methods of jointing the boards when used for panelling. There is an exhibit of Masonite insulation boards used as a base for wallpaper or plaster. The principal exhibits, however, illustrate the uses of Masonite insulation boards for insulation and the prevention of condensation on brick walls, concrete, etc. The uses of Presdwood is also shown for floor coverings and furniture construction; in addition to ordinary building work. Another exhibit illustrates the use of Presdwood as a facing for shuttering in concrete wall construction. There are also doors of Presdwood and insulation boards.

*

VULCANITE LIMITED (Row E, Stand 102) show specimens of their patent vulcanite roofing for waterproofing flat roofs, finished with mastic to receive gravel, shingle covering, or tar-macadam finish, and also with grit embedded. Rexilite is self-faced bitumen roofing felt for covering sloping or Belfast-shaped roofs. It is made in three substances and supplied in rolls containing 24 square yards, with cement and nails ready to fix. Leatherite, Apex, Parex and Pyramid, other brands of roofing felts shown, are suitable for the same purpose. For underslating there are Tilex, a tough and durable bitumen felt, S. and V. qualities bitumen sheetings; and for dampcourses are exhibited Reliance lead and bitumen, Bituna, a pure bitumen on a hessian base, Fibakore, a bitumen on a felt base, P.V. asphaltic sheet dampcourse,

and many other brands. Among other waterproofing specialities on view are standard rock asphalt for cavity wall filling, Pelican bitumen compound, and Rexoid bitumen paint. Grip flash wedges, a metal compound wedge for fixing metal flashings into brickwork or stone, is also exhibited.

*

Seldom have such a variety of textures in faience, and such a galaxy of colours, been collected and built as those used to construct the office of the LEEDS FIRECLAY CO., LTD., on Stand 101, Row E. It is very unlikely that there will be one architect who will not find, somewhere in this miniature building, a texture or some permanent colour that does not meet with his approval. Leeds fireclay sanitary ware is so well known that only new fitments are exhibited : the bed pan washer, for instance, meeting a definite need for private nursing homes; and the sink with a metal basket automatically to collect meal refuse. Fireplaces of new design are to be seen for the first time.

*

Pavement lights take a leading place on Stand 259, Row O, of HAYWARDS, LTD. Special attention is drawn to the lenses of Haywards W glass, which is guaranteed to resist "fledding" for long periods. Haywards international fire-resisting stairs is another speciality that will attract attention. This is intended for stores, offices, theatres, public buildings, etc. The design of the stairs is adaptable to meet varying conditions. It permits the use of different surface finishes to the treads and risers, and provides for exceedingly quick and economical erection. Among the metal windows is Haywards hospital-type window, which is divided into two opening portions, pivoted, balanced and interlocked. This has important advantages for institutional work. Collapsible gates show a fresh development in Haywards mid-bar gate. A vertical bar is fitted between each pair of pickets, halving the space between them and increasing the safety of the gate, especially when used for lift work. Examples of other Haywards products include architectural metalwork, Reform glazing and lanterns, lead lights, copperlite, fire-resisting and ornamental glazing, and sheet metalwork.

*

Lap, exhibited by LAP (C.I. PROCESS), LTD. (Row G, Stand 133), is a permanent material for external and internal architectural or decorative use, which is new to this country. It is shown in various forms, such as decorative panels, table-tops and coloured slabs. Lap is a pre-cast substance possessing a slightly translucent glazed surface. It can be obtained in almost any colour, or combination of colours, and in many textures, embodying metals in powder or leaf form, thus enabling an architect, artist or sculptor to have his own designs or models faithfully reproduced to his own ideas, instead of being entirely dependent on the natural materials which are available. The material may be used for the construction of fireplace surrounds and mantelpieces, and lends itself to table-tops and other accessories to modern decoration. It can be cast in slabs of varying thickness, from $\frac{5}{8}$ inch upwards, according to the nature of the work, and of any size up to 10 feet by 5 feet. It is claimed that there is no limit to size in slabs, other than cost of production and practicability of fixing; and that designers, who have been compelled to subordinate their conceptions of proportion to the limited and uncertain sizes of natural material, will find a long-denied freedom in designing shop fronts or interiors in Lap where such demand or invite bold proportion. In the form of tiles Lap is available in patterns, colours, and textures that offer new possibilities in decorative work. Lap is manufactured in England under process covered by letters patent at Willowbank Wharf, Putney Bridge, Fulham, London, S.W.6.

*

WALTER CARSON AND SONS (Row K, Stand 197) exhibit all their standard lines and introduce a new product in Carson's lacquer paint. This is a quick-drying glossy paint for all kinds of interior and exterior decoration and can be applied over previously painted surfaces. It dries with a hard, smooth finish and leaves no unpleasant odour. It is supplied in sixteen standard colours, all of which can be mixed to produce intermediate shades. It is claimed that owing to the exceptionally pure quality of the medium used, the colours are much cleaner than it is possible to obtain with ordinary paints.

*

Details of the important works which have been carried out with Ciment Fondu during the past seven years are obtainable on the Stand No. 238, Row N, of the LAFARGE ALUMINOUS CEMENT CO., LTD., where also many interesting photographs and records are exhibited. Concrete users are shown the many ways in which this cement can not only save them time, but, it is claimed, enable them to produce concrete of remarkable strength and quality in twenty-four hours. Independent tests by engineers and Government authorities throughout the world are available to those interested. Ciment Fondu is claimed to be the aluminous cement which ensures that all concrete made with it is rock-hard twenty-four hours after placing, with a continuous increase of strength with age. The cement is British made at the company's works at West Thurrock, Essex.

*

A fish pond in brickwork, lined throughout with Callendrite sheeting, will be under a practical water test on the stand of GEORGE M. CALLENDER & CO., LTD. (Row D, Stand 62), for the duration of the exhibition. In the centre of the pond is a column of loose, porous bricks dampcoursed with Callendrite. Visitors should note the dry bricks above the dampcourse. Another dampcourse exhibited is named Ledkore. This is composed of a core of sheet lead with a special bitumen covering both sides. It contains no coal tar or pitch. Special attention is directed to the complete unification of the lead core with the bitumen covering. A wall shows the application of Protex. One portion is treated with Protex applied directly on to the brick and afterwards rendered with plaster; another portion shows the Protex applied to plaster and papered over. The wall is standing in water with which the brickwork is saturated, and practically demonstrates the effectiveness of Protex as a damp-resister. The iron railing surrounding the fish pond is treated with Callendure coloured bitumen paint, a preventive of rust. Examples of roof construction are exhibited to demonstrate the application of Veribest roofing on sloping surfaces and Veribest multiple roofing on flat surfaces.



The stand of G. M. Callender and Company, Ltd.

There is also a model showing the application of Bitubond to cavity walls. It is claimed that when poured hot into cavities formed by two brick or stone walls, Bitubond searches and fills every interstice in the inner wall faces, rendering the wall impervious, non-conducting, sound and temperature proof. It is also claimed to have enormous tensile and crushing strength, and to add considerably to the strength of walls to which it is applied.

*

On Stand 214, Row L, G. A. HARVEY & CO. (LONDON), LTD., show ventilators, ventilating piping, zinc roofing, and a selection of steel equipment, suitable for the office, the works or the home. There are also steel cupboards, steel tables, shelving, adjustable and fixed storage bins, steel works offices, filing cabinets, steel clothes lockers for works and staff, and steel lavatory partitions. They can be dismantled and re-erected when and where desired without the slightest depreciation whatever. Perforated metals, another speciality of the firm, are represented by screens and screen plates suitable for gravel, sand and ballast, and by cement machinery plates. Wire window guards are produced by this firm, and representative designs are exhibited on model factory and church windows. Mild steel tanks, cisterns and cylinders are also shown, also gutters from 18-gauge material to ⅜-in. plate. Corrugated bends of all sizes and dustbins of the standard Harco quality are also exhibited.

*

Following is a list of the exhibits of the RUBEROID CO., LTD. (Row H, Stand 146): Ruberoid bitumen roofing, for use on large commercial and industrial buildings. It is claimed to be efficient on flat, pitched or curved roofs of wood or concrete, and to be unaffected by fumes of acids or alkalis, or by sea air. Starex roofing, suitable for use on garages, large sheds, farm buildings and workshops. Pluvex roof felt, for all small buildings about the farm, factory or home. It is also claimed to make an excellent lining under lino on concrete, preventing rot, and when used under slates or tiles to make an efficient underslating, giving sound protection to the roof. Ruberoid strip slates, a form of Ruberoid roofing having a slate surface and cut in the shape of tiles. It is manufactured particularly for sports and pleasure buildings, and is supplied in two colours—sage green and venetian red. Ruberoid dampcourse, for foundation, is claimed to fill all the requirements of a permanent dampcourse, to be purely bituminous, yet unaffected by pressure or temperature. Pluvex bitumen dampcourse. This is made in four qualities: No. 1 quality on woven base, No. 2 quality on fibre base, No. 3 quality lead-lined, woven base, and No. 4 quality lead-lined, fibre base.

*

CRAFTEX, LTD. (Row O, Stand 265), exhibit Craftex plastic paint for interior wall decoration. By means of this paint it is claimed the finest results can be readily obtained and any desired texture can be carried out. It is sold in powder form, and is mixed with warm water to the desired thickness. By using different brushes a huge variety of textures can be obtained, and colour schemes are unlimited. The material is marketed as a medium for the decoration of cinemas, theatres, public buildings, offices and private houses.

*

The stand (156, Row H) of HOLLIS BROS. & CO., LTD., comprises a display of wood-block parquet and hardwood floors. A special feature is made of Empire timbers for flooring. The firm also show several woods of Empire origin which have been extensively employed by prominent architects. By a patented system of interlocking the firm are able to introduce a greater variety of patterns in wood-block flooring, which have hitherto been confined to parquet. A small layout of a roller skating rink is exhibited in narrow width maple flooring. This is laid to the correct "follow the grain" pattern. The firm have been responsible for laying some twenty roller rinks in all parts of the country during the last twelve months or so. A miniature house is shown to illustrate the effect secured by using hardwood floors for domestic work.

*

As before, JAMES ADAMS AND SON, LTD., exhibit (Row D, Stand 73) their Slave door springs. The springs are shown in both double- and single-action types. In addition to the pneumatic check floor springs, the firm also exhibit samples of their patent Slave oil check floor springs, in which the checking fluid is totally enclosed and cannot escape into the spring casing or stain the floor. The firm now use a stainless, non-freezing checking fluid, so that floor stains are doubly safeguarded against.

*

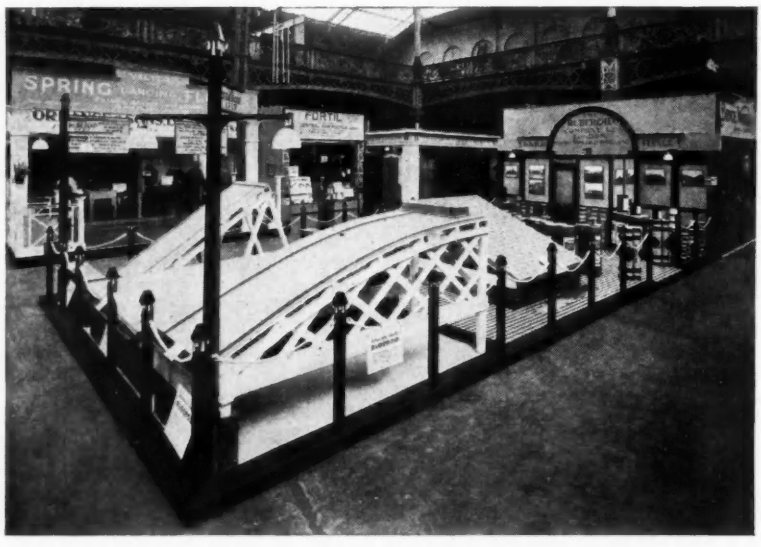
On Stand 284, Row P, the HOLLOW STEEL FLOOR CO. are exhibiting their hollow steel beam fireproof floor. The hollow steel beams are designed to carry dead and live loads with safety factor of four, whilst the reinforced concrete casing, which is virtually a reinforced concrete floor, is given the same moment of resistance as the steel beam which it encases. The combined result is claimed to be a floor which carries ten times the designed load without collapse in an official test, although 50 per cent. lighter than a solid floor. The floor is said to have emerged successfully from all tests, and has been installed in public and private buildings, cinemas, theatres, factories and offices in various parts of the country. The installation of the floor is simple, and as no specialist knowledge is required the work can be carried out by the general contractor. The company supply complete designs and estimates, and take full responsibility for completed floors.

*

A variety of attractive designs for marble paving form the base of the stand (Row F, 106) of ANSELM ODLING AND SONS, LTD. The back wall is in the form of a marble shopfront of the modern style. The filling contains suggestions for marble linings to walls opened out to obtain the most decorative effect. On the stand are numerous varieties of marbles, onyx and alabaster, including turned pedestals, pedestal lamps, and richly-carved figures. Specimens of the rarer and more valuable marbles, such as Lapis Lazuli, Malachite, and Blue John, are also shown.

*

HEAT AND SOUND INSULATION, LTD. (Row N, Stand 248), have erected an office room of Thatchboard (compressed reed panels). This room contains a sound-proof wall and a sound-proof door. There are also sound-absorbent ceilings and wall panels of a composite device, shortly to be manufactured under the name of Silenite, which consists of eel-grass, enclosed in perforated metal. A "noise-trap" for open windows, with Silenite as the medium, is also shown. Practical demonstrations of the insulating properties of Thatchboard against heat, cold and noise are provided by means of two separate apartments—one formed of breeze and the other of Thatchboard. Bells, horns and other instruments of piercing noise are freely employed in both chambers to prove the sound-resistance of



The stand of the Ruberoid Company, Ltd.

reeds in the scientific form of Thatchboard. Electric heaters, thermostatically controlled, are installed to show the insulating properties, and the consequent heating economy of the same reed material. An exhibit is made of the official report of the Government Department of Scientific and Industrial Research, which in May last testified that a Thatchboard house, in comparison with a standard brick house required only 62 per cent. of produced heat to maintain a corresponding temperature. Similarly, the report of the National Physical Laboratory, showing equally favourable results in the use of Thatchboard and Temperac Quilt respectively for sound absorption, is displayed. Loaded panels of both straw and reed Thatchboard demonstrate their resistance to transverse bending loads, as when used in shuttering instead of timber or to withstand the pressure or shock normal to its surface.

*

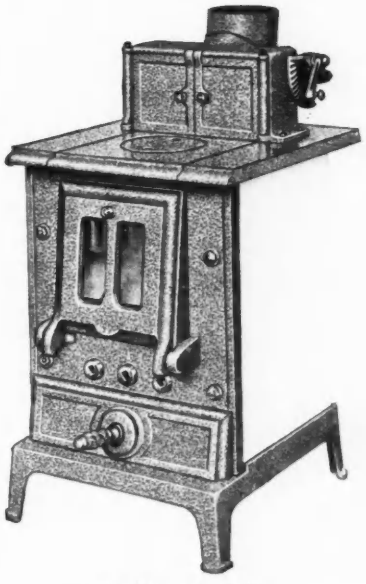
The interior walls and ceiling of the stand of the SILICATE PAINT CO. (Row E, 100) are decorated with Duresco. The ceiling is treated with No. 421 ivory white. The walls are in modern style, the colours used being No. 415 gold, No. 86 cream, No. 408 sea green, No. 409 reseda, and No. 511 violet. The metallic effects are obtained by using almium, the special aluminium paint manufactured by the company. The woodwork is stained with No. V. 266 dark oak oil stain and varnished with No. V. 224, fine copal varnish of the company's Silkas brand. The ceiling of the small room is in No. 46 white Duresco, and the walls are in No. 47 light stone, E suede grey and No. 81 slate. The woodwork is painted with two coats of white Silpaco flat oil paint. The exterior of the stand is painted with two coats of No. 1055 pale grey Silpaco. The decorated panels shown on the sides of the stand are the prize-winning panels of the 1929 Duresco Competition, held at the National Federation Exhibition at Leeds. Inside the stand is a slab of Duresco of 1,500 coats all carried out by brushwork, showing that Duresco does not flake when applied on a clean ground. There are also a few small samples of work done in almium.

*

The BRITISH MAGNESITE FLOORING CO., LTD., have covered the whole of the floor to their stand (Row C, 34) with their Magnestic jointless flooring, laid $\frac{3}{4}$ in. thick in two layers, each $\frac{3}{8}$ in. thick and reinforced with wire mesh in between the two layers, in order to eliminate cracking. At the back of the stand, fixed as a dado, are samples of imitation marble and terrazzo floors. The former is a new departure in floors and is intended for corridors, bathrooms, etc.

*

The new No. 0 size Nautilus coke-heated domestic boiler is exhibited by the NAUTILUS FIRE CO., LTD. (Row O Stand 268), for the first time. Like the other sizes of the Nautilus boiler, it is made of welded mild steel and has the rotating fire bottom bars, which enable the fire to be cleaned and clinkered with the fire door shut. It has an additional advantage, in that by opening the doors of the smoke hood and placing the centre portion of the hot-plate upon them and lowering the top portion of the front fire bars, an open fire may be obtained. The boiler will then warm the kitchen as well as provide supplies of hot water. It has a damper control with a minimum adjustment for night running. It is claimed that once



Nautilus coke boiler.

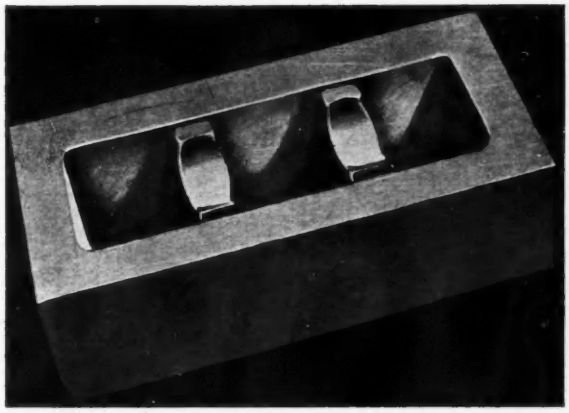
this is set, the damper may be closed each night without fear of the fire going out through lack of draught or burning out through excess of it. The sides of the boiler are fitted with white enamelled steel plates; all other parts are finished in grey mottled porcelain enamel, flint hard and with a high gloss.

*

Phorpres Fletton bricks, of which over 1,000,000,000 are produced annually, are displayed by the LONDON BRICK CO. AND FORDERS, LTD. (Row G, Stand 131). The structure itself is faced with the 2 in. and $2\frac{5}{8}$ in. rustic bricks. The standard Phorpres brick is seen in one of the dwarf walls. The interior of the office is faced with the company's special white facing bricks. An exhibit of particular interest is a 9-in. wall constructed of the company's latest product, the Phorpres cellular Fletton, a patent brick giving honeycomb or cellular construction with, it is claimed, a very considerable saving in weight. One of the dwarf walls is constructed of these bricks, with a multicoloured rustic facing. At the back of the stand is a fireplace executed in rustic bricks. At the entrance to the stand, as well as on the sides of the building, are exhibited the company's hand-made sand-faced roofing tiles. Around the stand are photographs of some of the company's works and plant, and drawings and photographs in colour of some of the buildings erected with the firm's bricks. There are also panels illustrating the special qualities of the cellular Fletton, and some interesting facts illustrating the company's huge output. Samples of special bricks, partition blocks, agricultural pipes, flooring quarries, road stone, special granite chippings, and other products of the company are also exhibited.

*

Following are a few of the specialities exhibited on Row F, Stand 108, by J. A. KING & CO., LTD. King concrete building, wall and partition blocks, for the erection of external and partition walls and internal partitions in thicknesses from $1\frac{1}{2}$ ins. to 9 ins. thick. These blocks have a rough surface for plastering or rough casting when used for external work. They are also made with a cement face for external work and internal partitions; the latter are being used considerably at the present time to avoid internal plastering. King pumice partition blocks, which are very light in weight and afford an excellent hold for nails and screws. King plaster partition slabs for partitions, pugging and ceilings: the surface is finished either keyed for plastering or smooth face. King reinforced plaster roofing slabs: they form a light, fire-resisting roof construction and have been used on many important buildings; they are particularly adaptable for factory and warehouse roofs, and give a smooth finish on the underside equal to a plastered ceiling. King self-centering floor tube system: the tubes are made in lengths up to 2 ft. 11 ins. and are so notched that they rest on and practically cover the lower flange of the R.S. fillers, which are spaced at 3 ft. centres maximum. The tubes are laid in dry, and a very small amount of concrete topping is claimed to make a floor which is light, strong and economical. Ferro-Glass patent pavement, floor, roof



A Phorpres cellular Fletton.

and stallboard light construction: this is composed of glass prisms about 2 ins. deep and 4 ins. square, so shaped that small reinforced concrete beams are made between each prism. The lips of these prisms are so shaped that they form practically one entire glass surface on the underside; there is no exposed ironwork. Glas-Crete patent floor and roof light construction, while being similar to ferro-glass in that it is composed of reinforced concrete and glass prisms, differs in that the glass covering to the reinforced concrete beams is omitted. There being no exposed ironwork, rusting is impossible and painting eliminated. Both Ferro-Glass and Glas-Crete constructions are extensively used for flat-topped lantern lights. The lights rise no higher than sill level of surrounding windows and consequently do not obstruct light or ventilation. Cristol glass construction, an electro copper glazing incorporating units of high relief moulded glass: this construction is used for domes, laylights, etc., and is claimed to be fire and weather resisting.

*

Among the exhibits of the INTEROVEN STOVE CO., LTD. (Stand 223, Row L), is the firm's latest production, a 22-in. width Super Interoven, which can be had with or without boiler for hot-water supply. Also shown are a 35-in. width Super Interoven, which is capable of cooking for big families, and the Pascall side-oven grate, in which the lower oven is instantly converted to a large hot-plate space. All the above stoves can be converted into open fires when cooking is finished. The Cheer-ee-o open-fire stove for continuous burning, night and day, at small cost, can be supplied in various finishes. Bewty barless fire fronts include a good trivet top, and fit any type of existing fire grate. The Cheerio wrought steel independent boiler gives continuous hot water day and night, burns any kind of fuel, also kitchen refuse, and has a large nickel-plated hot plate for light cooking, etc. It can be used as an open or closed fire.



The New 22 in. Super Interoven.

*

The stand of VENESTA, LIMITED, Row F, 118, has been designed by M. Le Corbusier to display in the most effective manner possible the grades of Venesta birch plywood and the various other types of Venesta plywood—oak, walnut, mahogany, gaboon, etc. Photographs are exhibited to illustrate work that has been carried out with the different grades and types of plywood. The use of Plymax—the armoured plywood—is also shown by practical examples. The design of the stand enables the structural and decorative significance of all the materials to be seen at a glance.

*

A large model, 7 ft. by 3 ft., on the stand of TUKE AND BELL, LTD. (Row D, 60), shows a country house and the layout of grounds and gardens, with the drainage system and sewage-purification plant, discharging the purified effluent into a stream running near the bottom of the site. The firm's ærobic bacterial filter bed is 9 ft. in diameter, and is fitted with their Ideal revolving distributor. This distributor is positive in action and, having no perforations liable to choke, is claimed to be capable of working for weeks without requiring any attention. The ball-bearing head works in an enclosed oil bath. In the Tuke and Bell oil and petrol interceptor, which is in coated cast iron, 30 ins. by 18 ins. by 24 ins., with 4-in. swivel outlet, the inlet grating is slightly sunk to permit of dished channels in the washing space floor, so that all washing water enters the petrol interceptor at the grating. The interceptor has two compartments, with dip pipe, to prevent the oil and petrol passing through, and ventilation is provided. The swivel outlet forms a trap. Above the inlet and outlet orifices there is a space for oil to accumulate. This interceptor is suitable for dealing with the washing water from one or two cars. The firm also manufacture a coated cast-iron grease trap for dealing with the kitchen and scullery wastes from large country houses, hotels, etc. A special feature of the traps is that the top portion provides for the accumulation of grease. These traps are fitted either with a horizontal inlet socket for a 4-in. pipe or a vertical inlet socket for a 2½-in. pipe, with 4-in. swivel outlets.

*

Since the last Building Trades Exhibition, Snowcrete, British white Portland cement, and Colorcrete, the rapid-hardening coloured Portland cement, have been placed on the market, and many exhibits are displayed by the CEMENT MARKETING CO., LTD. (Row F, Stand 114), to demonstrate their artistic possibilities. Tests on Ferrocrete, the rapid-hardening Portland cement, and Blue Circle are carried out at frequent intervals.

*

In a miniature building—an enclosed stand of simple modern design—WILLIAMS AND WILLIAMS, LTD., show metal windows and doors in use. In one side is the standard bay window for domestic use. On the other are two typical standard cottage windows. The window at the back of the stand, looking on to a painted scene, is of the heavy standard type suitable for mansions. In the front is a pair of French doors suitable for country houses, and on either side of the entrance are standard factory windows. Inside, other types of metal window frames are displayed, as well as a collection of photographs showing not only the full range of output, but the great variety of work which the firm have in hand in four continents.

*

The stand itself, a reproduction in English oak of a Tudor hall and staircase, is the chief exhibit of RIPPERS, LTD. The exterior work is left in its natural colour, except for a treatment which reproduces the effect of age and brings out the natural quality of the wood. Inside there is a room panelled to match the remainder of the stand. In the upper portion of the stand are panels in different woods designed to illustrate a variety of treatments, particularly in oak. Another exhibit illustrates the advantages of the Hygienic patent flush door. This embodies special features, and is shown in a variety of finishes. The firm exhibit on Stand 51, Row D.

*

The stand of the LONDON SAND BLAST DECORATIVE GLASS WORKS, LTD. (95, Row E), includes exhibits of sandblasted and acid designs on different types of glass, special tinted and decorated mirrors, electric lighting fittings in engraved glass, samples of advertising tablets, mirrors and desk novelties. The centre feature of the exhibit is a decorative design composed of different tints of plate glass.

Continental Architecture

Among foreign art periodicals circulating in England none are better known than the two published by the firm of Alexander Koch, *Innen-Dekoration* and *Deutsche Kunst und Dekoration*.

The second of these is rather wider in scope than the other, and has long been a favourite among painters and sculptors, while its craftsmanship section keeps in remarkably close touch with the latest Continental movements. The August issue has an excellent account of the Exhibition of the Austrian Werkbund at Vienna, illustrated with examples of the work of Holzmeister, Sobotka, and the veteran Josef Hoffmann, whose influence on the Viennese school of design is still pre-eminent.

The Paris Exhibition of the German Werkbund is described in the September issue. This time the bulk of the work is done by Walter Gropius. The article on the German sculptor Georg Kolbe ought also to be of considerable interest to English architects.

Innen-Dekoration is a paper which, as its title indicates, deals exclusively with interior decoration. A number of Berlin restaurants by the architect Michael Rachlis and Mr. Serge Chermayeff's London flat are the most important subjects dealt with in August. The photographs of the latter are of a very high standard indeed, and it is interesting to compare them with the work of German photographers which fills the rest of the issue.

The house of the Viennese architect Ernst Schwadron is exhaustively dealt with in the September issue, which also has some interesting interiors by the French designer Jean Michel Frank.

LITERATURE

SOANE'S MUSEUM

THE eleventh edition of the description of Sir John Soane's residence in Lincoln's Inn Fields has recently been issued. It has been edited by Mr. Arthur T. Bolton, F.R.I.B.A., the present (seventh) curator of the museum.

Mr. Bolton, in his preface, points out that the publication of a new edition of the *Handbook* or *General Description of Sir John Soane's Museum* occurs just ninety years after the first edition by the first curator in 1840. Within three years after the inauguration of the Sir John Soane Museum under the private Act of Parliament (obtained by Sir John Soane in 1833) which came into force on the death of the founder, January 20, 1837, it became evident that some general description of the house and its contents was required for the use of students and visitors. The first curator, George Bailey, appointed by Sir John Soane's will in accordance with that Act, undertook, with the concurrence of the trustees, the first *Handbook* at a published price of one shilling. This first edition of the *Handbook* (1840) is now seldom met with, but an examination of the original MS. in George Bailey's handwriting shows that it was an abridgment of the text of Sir John Soane's own *Description of the House and Museum* (1835). This work, a large quarto, "privately printed, only 150 copies," was mainly distributed to the author's friends and connections, and is marked "Not published."

There was, continues Mr. Bolton, an earlier book of 1827 produced by Soane's friend, John Britton, F.S.A., entitled *The Union of Architecture, Painting, and Sculpture*. The text of this work appears to have been really written by W. H. Leeds, while the drawings were supplied by Soane. Another short account appeared in Pugin and Britton's *Public Buildings in London* (1828). Britton's book of 1827 was not a success, and in 1830 Soane made his first attempt on his own account. Finally, after his retirement in 1833, the veteran undertook what proved to be his best literary effort, with the sole co-operation of Mrs. Barbara Hofland, who was engaged to follow his own account, in each successive stage, with notes of a more popular and descriptive character. Her contribution to Soane's book was to a considerable extent designed to interest the more youthful class of visitor.

The notes of the lady author have now been separately edited under the title, *Popular Description of Sir John Soane's House, Museum, and Library*, and it appeared to the present curator that a reversion, as close as possible to the original text of Soane's own *Description* (1835), would provide the best possible handbook for the student and visitor. At the same time, much indispensable information, added by the successive editors of the previous ten editions of the handbook, has been retained in the present text. Other additions have been made by the editor, both in notes and appendices, in the hope of making the *Handbook* of real service to the student and visitor, not only on the spot, but also for general use as a work of reference.

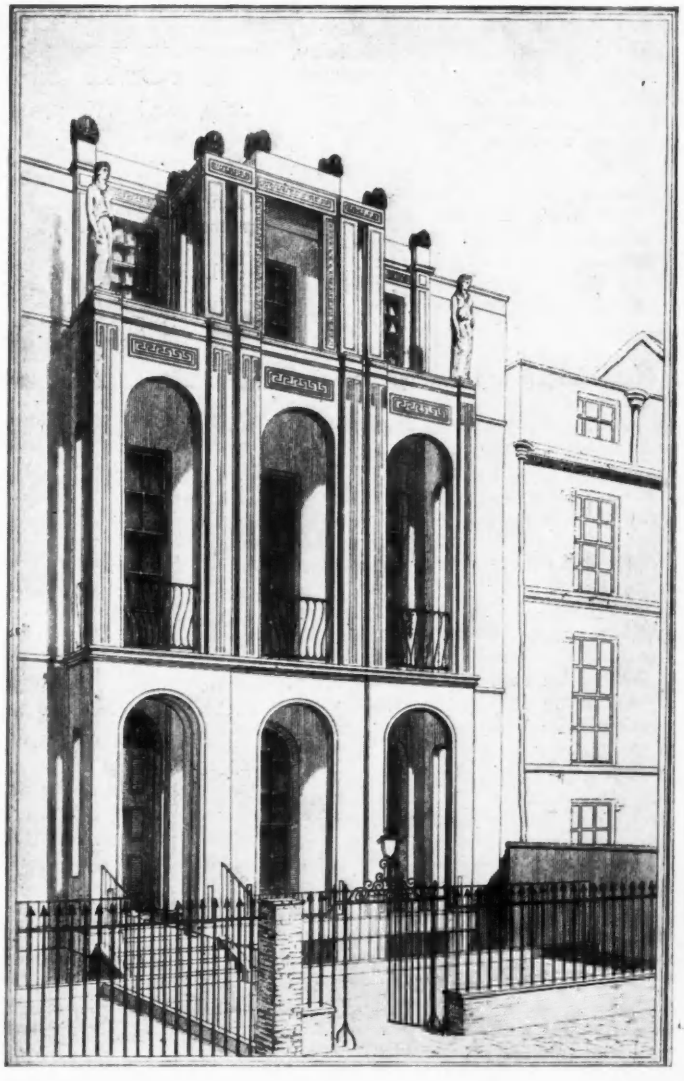
Description of the Residence of Sir John Soane. Edited by Arthur T. Bolton, F.S.A., F.R.I.B.A. Eleventh edition. Oxford University Press. Price 1s. net.

MODERN HOUSES AND BUNGALOWS

THE seventy-eight houses illustrated in this book are "architects' houses"; that is to say, they have been designed by architects and not by builders. All of them are designed with reference to the fact that comfort and economy lie in the direction of limited domestic labour. They are either one-servant or servantless houses, and the plans only differ according to the kind of home life that is contemplated. Several of the examples have been planned to qualify for the Government subsidy.

Every house nowadays is, or at least aims at being, a labour-saving house. Innumerable "gadgets" with this end in view have been offered to the house-owner. Some of them are good and useful; others, as Mr. Hugh B. Philpott, the editor of the book, points out in his introduction, are merely silly. He rightly points out that the best labour-saving device of all is a good plan.

The façade of Sir John Soane's Museum, as originally built in 1812.



[*From* A Description of the Residence of Sir John Soane, R.A.]

Much apprehension still exists with regard to architects' fees. Mr. Philpott is wise in publishing particulars of the commission recognized by the R.I.B.A., and showing how the service given for this fee will render the house the individual possession of the client, and in some measure an expression of his own individuality. Everyone who reads his notes will agree that the architect who skilfully, patiently and conscientiously plays his part, earns every penny of his commission.

Modern Houses and Bungalows. Edited by Hugh B. Philpott. London: Illustrated Carpenter and Builder. Price 2s. 6d. net.

LAW REPORT

ALLEGED WAIVER OF BREACHES

Morgan-Jones v. *Wilson. Court of Appeal. By Lords Justices Scrutton, Greer and Slesser*

ALLEGED waiver of certain breaches formed the main ground in this appeal, which was by the plaintiff, Miss P. Morgan-Jones, from a judgment of a King's Bench Divisional Court, consisting of Justices Talbot and Finlay, allowing the appeal of the defendant, Mr. R. Wilson, from the judgment of the deputy county court judge sitting at Marylebone, in favour of the plaintiff. Mr. Wilson had rented a service flat from Miss Morgan-Jones at Westbourne Terrace, Paddington, under an agreement, from July, 1929. Mr. Wilson had paid the rent in October till the following January 9, and Miss Morgan-Jones claimed rent from then to April. Mr. Wilson set up that there had been a breach of plaintiff's contractual obligations which entitled him, under the agreement, to determine the contract for tenancy. He also counterclaimed for damages.

The county court judge had evidence that there had been a failure to implement the obligation to provide hot water and central heating in October and again in November, and he came to the conclusion that there had been a breach by the plaintiff, but that the payment of rent in the October constituted such a waiver by the defendant of the breach that he was not entitled to rely upon it, and in the circumstances there could not be a determination of the tenancy. He gave judgment for the plaintiff for £54 odd, but on the counter-claim for the defendant for £5 damages for breach of contract by plaintiff.

Upon this judgment, the defendant appealed to the King's Bench Divisional Court. They allowed the appeal, Mr. Justice Talbot saying that the only waiver which the county court judge appeared to have considered was one affected by the payment of rent. It was subsequently discovered that the payment of rent was made on September 27 and not in October. In the circumstances, Mr. Justice Talbot said, it was impossible to hold that the payment in September could operate as a waiver of breaches which began early in October. He accordingly held that the county court judge had misdirected himself as to the effect of the facts he had found and judgment should be entered for the defendant, Mr. Wilson.

Mr. Justice Finlay agreed. Miss Morgan-Jones now appealed from that judgment.

Sir Albion Richardson, K.C., argued the case for the appellant, but the court, without calling upon Mr. Laski, K.C., for the respondent, dismissed the appeal with costs.

Lord Justice Scrutton said the court had come to the conclusion that on the facts of the case there was no material in law sufficient for the court to decide that the defendant had waived the breach of the plaintiff's contract to provide the hot water and heating.

ALMSHOUSES, POTTERS BAR

Following is a list of the general contractors and some of the sub-contractors for the almshouses at Potters Bar, High Barnet, illustrated on page 412 :

General contractors, Pettengell. Sub-contractors : A. H. Herbert & Co., Ltd., bricks and roof tiling; MacDowall, Stevens & Co., Ltd., stoves; Leeds Fireclay Co., Ltd., sanitary fittings; Comyn Ching & Co., Ltd., locks and furniture; Crittall & Co., Ltd., casements; Fernden Fencing Co., fencing and gates.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

25415. Hughes, H. W., and Langworthy, C. F. Forming rubber floorings, etc. August 26.

25664. Black, J. Window fittings. August 28.

25789. Howard, E. Drawing boards. August 29.

25986. Booth, C. H., and Booth, J. and T. Roller shutters. August 30.

SPECIFICATIONS PUBLISHED

318979. Kleine and Stapf Ges. Trough-shaped girders or other beam members for building purposes.

333940. Elkington, H. D. (Naamlooze Vennootschap de Bataafsche Petroleum Maatschappij). Reinforced concrete.

333978. Wright, A. H. J. Sheets or slabs for building purposes.

334052. Murray, W. C. Metal flooring and like supporting surfaces.

334053. Stewart, A. Preparation for water-proofing cement used in buildings, and process connected therewith.

ABSTRACT PUBLISHED

332104. Roofing tiles. Ames, R. Y.

COMPETITIONS OPEN

September 30.—The Isle of Man Education Authority invited architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums : £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs : September 30.

October 1.—The Burton-on-Trent Local Education Authority invited architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor : H. T. Buckland, F.R.I.B.A. Premiums : £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs : October 1.

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invites architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor : A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs : October 20.

October 30.—The General Building Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums : £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs : October 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office,

Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young Communist Square), and will contain a mass musical stage and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, SEPTEMBER 17

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visits to the Flaxman Automatic Exchange, Mallord Street, Chelsea, and the Holborn Automatic Exchange, 268 High Holborn, W.C. **3 p.m.**

INTERNATIONAL BUILDING TRADES EXHIBITION, Olympia. Until October 1.

BRITISH GLASS CONVENTION. At Buxton. Until September 20. Morning: Meeting of the Council of the Society of Glass Technology. Afternoon: General Meeting of the Society of Glass Technology. Evening: Informal Presidential Reception of members and their friends at the Palace Hotel.

THURSDAY, SEPTEMBER 18

BRITISH GLASS CONVENTION. At Buxton. Morning: Official welcome by the Mayor and Corporation of Buxton, at the Peak Buildings. Presidential Address. Discussion on "Elimination of Waste in the Glass Industry," to be opened by Dr. Miles. Official luncheon. Evening: Mayoral Reception at the Palace Hotel.

L.C.C. HAMMERSMITH SCHOOL OF BUILDING AND ARTS AND CRAFTS, Lime Grove, Shepherds Bush, W.12. Exhibition of Students' Work. 10 a.m. to 9 p.m. Until September 20. (Sept. 20, 10 a.m. to 4 p.m.) **10 a.m.**

FRIDAY, SEPTEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Exhibition, in the Galleries, of drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.). Until September 30. **10 a.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussions on "Marketing Methods in the Glass Industry" and "Public Propaganda in the Glass Industry," to be opened by Sir Francis Goodenough, C.B.E., and H. Gordon Selfridge, respectively. Afternoon: Golf Competition for championship of the Glass Industry. Evening: Banquet at the Palace Hotel.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Meeting to be held at Southampton.

SATURDAY, SEPTEMBER 20

Sunrise, 6.41 a.m. Sunset, 7.5 p.m.

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS, 26 Buckingham Gate, S.W.1. Debate on official architecture, to be held at the Building Exhibition, Olympia. Chairman, Lord Riddell. Speakers will include Wynn Owen, F.R.I.B.A., and H. V. Lanchester, F.R.I.B.A. **3 p.m.**

BRITISH GLASS CONVENTION. At Buxton. Morning: Discussion on "The Convention—Present and Future," to be opened by Mr. Walter Chance, M.A., J.P.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North Wales District meeting, to be held at Bangor.

WELSH SCHOOL OF ARCHITECTURE, Technical College, Cardiff. Latest date for submission of application forms for the Scholarship Examinations.

MONDAY, SEPTEMBER 22

NORTHERN POLYTECHNIC, Holloway, N.7. Commencement of new term.

TUESDAY, SEPTEMBER 23

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Church of St. Martin-in-the Fields, Charing Cross, W.C.2. Tea will be served in the Crypt. **3 p.m.**

LIBRARY ASSOCIATION. Fifty-third Annual Conference, to be held at Cambridge. Until September 27.

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. Dinner and Dance to be held at the Quadrant Restaurant, Regent Street, W. Tickets, 7s. 6d.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Yorkshire District meeting, to be held at Hipperholme.

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Church Bell Foundry of Mears and Stainbank, 32-34 Whitechapel Road, E.1. **11.30 a.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Continental Glass," 12 noon. "English Domestic Glass." 3 p.m. Both lectures by Miss B. Goldsmid. **12 noon.**

MONDAY, SEPTEMBER 29

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Sanitary Inspectors' Course. **6 p.m.**

TUESDAY, SEPTEMBER 30

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. "The Making of a Cathedral—Liverpool." By E. W. Harvey-Piper. (Lantern Illustrations.) **7 p.m.**

ISLE OF MAN GRAMMAR SCHOOL COMPETITION. Latest date for submission of designs.

WEDNESDAY, OCTOBER 1

BURTON-ON-TRENT SCHOOL COMPETITION. Latest date for submission of designs.

FRIDAY, OCTOBER 3

TOWN PLANNING INSTITUTE. Twelfth Annual Country Meeting, to be held at Leicester. Until October 5.

SATURDAY, OCTOBER 4

Sunrise, 7.4 a.m. Sunset, 6.53 p.m.

MONDAY, OCTOBER 6

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Commencement of Winter Term.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Motor Coach Excursion: Special Visit to Greenhithe Cement Works. Leave Portland House, Tothill Street, Westminster, S.W.1, at 1.45 p.m. Tickets obtainable from the Secretary of the Society. **1.45 p.m.**

WELSH SCHOOL OF ARCHITECTURE, Technical College, Cardiff. Commencement of School Year.

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Smoke Inspectors' Course. **6 p.m.**

TUESDAY, OCTOBER 7

R.I.B.A., 9 Conduit Street, W.1. Closing date for applications for admission to the Intermediate Examination.

THURSDAY, OCTOBER 9

C.P.R.E. Third Annual Conference, to be held at Welwyn Garden City. Until October 11. Among the papers to be read are the following: "The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields." By Sir Lawrence Chubb. "Town and Regional Planning in their Relation to the Objects of the C.P.R.E." By Sir Theodore Chambers, K.B.E., F.S.I. "Education and Citizenship in their Relation to the Safeguarding of the Countryside, etc.," and "Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds." Each paper will be open to discussion.

THURSDAY, OCTOBER 16

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to Cement Marketing Company's Laboratory, Portland House, Tothill Street, Westminster, S.W.1. (Party limited to 30.) **7 p.m.**

MONDAY, OCTOBER 20

BIRMINGHAM WELFARE CENTRES COMPETITION. Latest date for submission of designs.

THURSDAY, OCTOBER 23

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by T. J. Clark, A.I.STRUCT.E., of the British Portland Cement Association. **7.30 p.m.**

SATURDAY, OCTOBER 25

Sunrise, 6.40 a.m. Sunset, 4.48 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the works of Messrs. Johnson, Dartford. **2 p.m.**

TUESDAY, OCTOBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "English Ironwork." By Edward Yates. **7 p.m.**

WEDNESDAY, NOVEMBER 12

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

THURSDAY, NOVEMBER 13

ROYAL ACADEMY, Burlington House, W.1. "Modern Pigments: Their Proper Selection and Use." By A. P. Laurie, D.SC. **4 p.m.**

FRIDAY, NOVEMBER 14

ROYAL ACADEMY, Burlington House, W.1. "Painting Media: Oils, Varnishes and Tempera." By A. P. Laurie, D.SC. **4 p.m.**

SATURDAY, NOVEMBER 15

Sunrise, 7.16 a.m. Sunset, 4.12 p.m.

MONDAY, NOVEMBER 17

ROYAL ACADEMY, Burlington House, W.1. "Methods of Wall Paintings." By A. P. Laurie, D.SC. **4 p.m.**

TUESDAY, NOVEMBER 18

ROYAL ACADEMY, Burlington House, W.1. "The Theory of Colour and its Application to Painting." By A. P. Laurie, D.SC. **4 p.m.**

WEDNESDAY, NOVEMBER 19

ROYAL ACADEMY, Burlington House, W.1. "Early Methods of Oil Painting." By A. P. Laurie, D.SC. **4 p.m.**

FRIDAY, NOVEMBER 21

R.I.B.A., 9 Conduit Street, W.1. Intermediate Examination. Until November 27.

SATURDAY, NOVEMBER 22

Sunrise, 7.28 a.m. Sunset, 4.3 p.m.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_3	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_3	Atherstone	Mid. Counties	1 5½	1 1
B_1	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_3	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_3	Basingstoke	S.W. Counties	1 4	1 0
A_3	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_3	Bedford ..	E. Counties	1 5½	1 1
A_3	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_3	Bewdley ..	Mid. Counties	1 6	1 1½
B_3	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_3	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_3	Boston ..	Mid. Counties	1 5½	1 1
A_3	Bournemouth	S. Counties	1 5½	1 1
B_3	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_3	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_3	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_3	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_3	Brixham ..	S.W. Counties	1 3½	11½
A_3	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_3	CAMBRIDGE	E. Counties	1 5½	1 1
B_3	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_3	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_3	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_3	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_3	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_3	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_3	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_3	Crewe ..	N.W. Counties	1 6	1 1½
A_3	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_3	Deal ..	S. Counties	1 4	1 0
A_3	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_3	Dorchester	S.W. Counties	1 3½	11½
A_3	Driffield ..	York	1 5½	1 1
A_3	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_3	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_3	Exeter ..	S.W. Counties	*1 6	1 1½
B_3	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_3	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_3	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_3	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_3	Gloucester	S.W. Counties	1 6	1 1½
A_3	Goole ..	Yorkshire	1 6	1 1½
A_3	Gosport ..	S. Counties	1 5½	1 1
A_3	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A_3	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_3	Hastings ..	S. Counties	1 4	1 0
A_3	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_3	Ipswich ..	E. Counties	1 5½	1 1
B_3	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_3	Kettering ..	Mid. Counties	1 6	1 1½
A_3	Kidderminster	Mid. Counties	1 6	1 1½
B_3	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_3	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_3	Lewes ..	S. Counties	1 3½	11½
A_3	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_3	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_3	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_3	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_3	Margate ..	S. Counties	1 4	1 0
A_3	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_3	Middlewich	N.W. Counties	1 6	1 1½
B_3	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_3	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_3	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_3	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_3	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_3	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_3	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_3	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_3	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_3	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_3	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_3	Shrewsbury	Mid. Counties	1 6	1 1½
A_3	Skipton ..	Yorkshire	1 6	1 1½
A_3	Slough ..	S. Counties	1 5½	1 1
A_3	Solihull ..	Mid. Counties	1 6	1 1½
A_3	South'pton	S. Counties	1 5½	1 1
A_3	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_3	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A^1	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_3	Warwick ..	Mid. Counties	1 6	1 1½
A_3	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_3	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester ..	S. Counties	1 4½	1 0½
A_3	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_3	Worcester	Mid. Counties	1 6	1 1½
A_3	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_3	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_3	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* NAVVY, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* BRICKLAYER, 1*s.* 8½*d. per hour;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1*s.* 8½*d. per hour;* DO. *fixer,* 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone:

Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0

Usual trade extras for large blocks.

York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour;* TILER, 1*s.* 8½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies				£14	0	0
Countess				23	0	0
Duchess				32	10	0
Old Delabole	*Med. Grey*			*Med. Green*		
24 in. × 12 in.	£42	11	3	£45	1	0
20 in. × 10 in.	31	4	3	33	0	6
16 in. × 10 in.	20	18	0	22	4	9
14 in. × 8 in.	12	1	9	12	16	3
Green Randoms, per ton				8	3	9
Grey-green do., per ton				7	3	9
Green peggies, 12 in. to 8 in. long, per ton				5	13	9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey			Med. Green		
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6
DO., machine-made do., per square 3 7 6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour;* JOINER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube 0 4 6
DO. framed in floors, roofs, etc., per ft. cube 0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube 0 8 6

PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1½ in. thick, per yd. sup.	0	12	0
Maple 1½ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1⅛ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1⅛ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1⅛ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1⅛ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1⅛ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1⅛ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8¾*d. per hour ;* MATE, *do.,* 1*s.* 3½*d. per hour ;* ERECTOR, 1*s.* 8¾*d. per hour ;* FITTER, 1*s.* 8¾*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour ;* MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb.*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ¾ in., each	0	11	0
DO., 1 in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *while, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ⅜ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 *oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup. ,,*	0	2	3
DO. *6 ft. sup. ,,*	0	2	6
DO. *20 ft. sup. ,,*	0	3	1
DO. *45 ft. sup. ,,*	0	3	3
DO. *65 ft. sup. ,,*	0	3	5
DO. *100 ft. sup. ,,*	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6¾
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* FRENCH POLISHER, 1*s.* 8½*d. per hour ;* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.
The measured work price is on the same basis . . . per ft. sup. £0 0 2½

FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. from 3*d.* to	0	0	6
Plaster-board, per yd. sup. from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

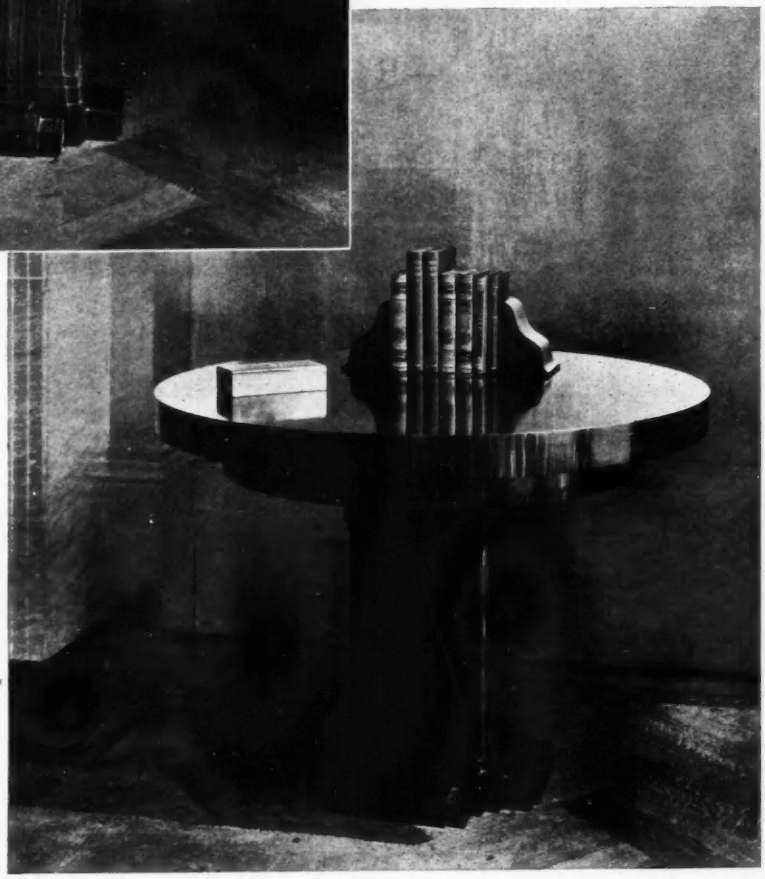
Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—



SCALE DETAILS:

A WEEKLY SERIES

TWO SMALL TABLES:
AT 37 PORCHESTER TERRACE, W.
BY EDWARD MAUFE



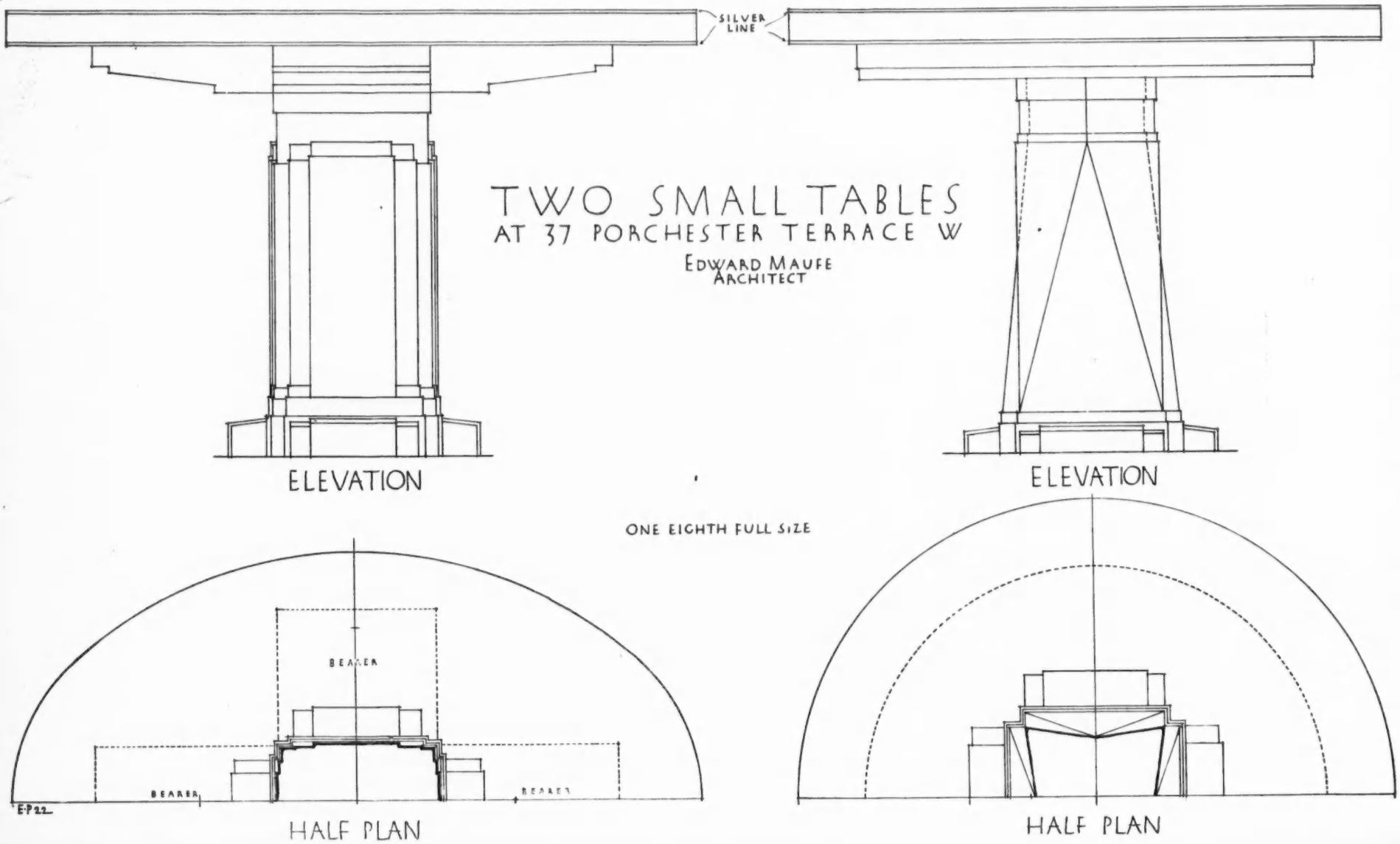
THESE two tables, though forming a pair in the usual sense, differ considerably in detail although in mass they are similar. One has a circular top of a diameter which strikes a mean dimension between the major and minor axes of the other, which is elliptical.

Both are framed up of hardwood covered with a veneer of Macassar ebony, with two fine silver inlaid lines round the edges of the table.

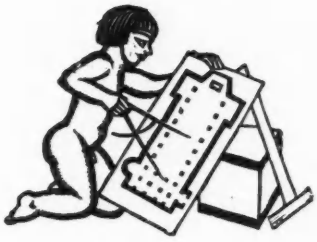
The tables were made for the silver-walled living-room of a flat at 37 Porchester Terrace, for which Mr. Maufe was responsible.

The drawing can be read with an architect's scale.

C


SILVER LINE
TWO SMALL TABLES
AT 37 PORCHESTER TERRACE W
EDWARD MAUFE
ARCHITECT
ELEVATION
ELEVATION
ONE EIGHTH FULL SIZE
BEARER
BEARER
BEARER
E·P22
HALF PLAN
HALF PLAN

THE ARCHITECTS' JOURNAL



WEDNESDAY, SEPTEMBER 24, 1930

ARCHITECTURE AND THE FARM

How often have I paused on every charm,
The sheltered cot, the cultivated farm . . .

—OLIVER GOLDSMITH

ONE is familiar with the viewpoint, nauseatingly stressed by the daily Press from time to time, and capable of brief statement as "only a woman who lives in a kitchen is fit to design one." This viewpoint is undoubtedly responsible for much bad amateur planning and needless consequent inconvenience—Mr. G. K. Chesterton has pithily said that "a practical man is usually a man who practises the mistakes of his ancestors." Nowhere are these mistakes more assiduously practised than in the design of farm buildings. There is one quality which seems almost general to all farmers, and that is an evident feeling that it is almost sacrilege for any but a practical farmer (with accent on the *practical*) to attempt to know anything of farming processes or the arrangement of the buildings constituting a modern farm. If farmers would put their cards freely on the table and describe fully and in detail their needs and intended routine they might secure from architects much the same kind of guidance as the modern manufacturer commonly does—and with equal advantage, but a large proportion of architect-designed farm buildings fail from non-acquaintance with simple essentials; probably too simple and obvious to the farmer to be even stated among the preliminaries, and not realized by him until errors and offences in idea have become solid fact.

On the other hand, the architect who is privileged to adventure in the field of homestead design ought to realize that, in the present circumstances afflicting agriculture, his efforts should be concentrated on a good working plan and a sound structure developed with that appearance of rightness which should be the result of training and competence, rather than upon finding means to introduce any cherished tricks of design or favourite materials. Architecture proper will only come in on those rare occasions when a wealthy landowner desires to sacrifice profit to æsthetic satisfaction. He will perform a similar service to his immediate client in particular, and to the community in general, if he succeeds in producing a farm building which shall be convenient, shapely, and sound, as does the housing architect who, with no straining for effect, does the same thing in that field of effort. Such achievement will be more highly esteemed and will redound to the credit of the architectural profession. It is better social service to design a building which can be built, and when built can be used, and while in use is not viewed with aversion as having cost much more than it should, rather than to produce a "conception" which outruns the means of its intending owner, with equally unsatisfying result whether it is abandoned or translated into fact. The architect must not even jib at the use of asbestos-cement roofing, which offers many advantages for such a structure as a modern double-rank cowhouse. He can, of course, avoid shrimp-pink diagonal tiling. All this is intended to advise the architect that serious farm-building design on a commercial basis is no primrose path.

Cleanliness, light, and air should be striven for in modern farm-building design, as they have been in all other improved forms of building. The innocent old lady who deplored the waywardness of farmers in always placing their gates in the muddiest part of the fields, though her reasoning was absurd, yet had her finger on one of the drawbacks of agricultural employment—particularly as affecting the rising generation, who have a distaste for mud-wallowing. Too often the yards and surroundings of a farm building are tacitly assumed as necessarily filthy throughout a great part of each year, and this is typical of many inconveniences which are held to be inevitable because they "always have been."

This is not the way to encourage the younger generation to farm work.



A MODERNISTIC EXHIBITION STAND

A photographic study of the Venesta Stand at the Building Exhibition, designed by Le Corbusier, Jeanneret and Perriand. The unique design of the stand enables the structural and decorative significance of all the materials to be seen at a glance. An isometric drawing appears on page 463.

NEWS & TOPICS

WELL-BEHAVED OLYMPIA

I DO not think the designs of the stands at this year's Building Exhibition display on the whole a marked originality. One or two seem to have caught a breath from Stockholm and endeavoured to express the modern spirit, but generally they are a sober, well-behaved gathering, with not a few old faces among them. The brick and tile makers possess an advantage in being able to build attractive stands with their exhibits, and Messrs. S. and E. Collier, Ltd., have a pleasing building with a central tower designed by Mr. A. J. Thomas. Another stand, designed by Mr. Walter Brand, of Leicester, for Messrs. W. T. Wright & Co., has a portico of silver-grey bricks, both plain and moulded, which form a shrine to their winning fireplace design within. The large stand of the London Brick Co. and Forders, Ltd., is carried out in rustic Flettons with a pleasing texture, and the paved garden ends with a good Exhibition joke in the shape of two tile pyramids on stems, resembling clipped yews. Messrs. Wheatly & Co. also exhibit a well-designed little stand composed from their various products, whilst Messrs. W. T. Lamb's stand is in the form of an attractive pavilion with two mullioned windows.

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Two effective designs, which seem to have been produced under the influence of the American skyscraper, are the stands of Messrs. Drytone Ltd., and Messrs. Mallinson and Son, Ltd. These have each a central tower motif, supported at the four corners by lower pavilions. The former is one of the best architectural compositions in the Exhibition, whether seen from the gallery or from the floor of the hall, and the latter deserves credit for the skill with which the design has been carried out, using only the materials exhibited by Messrs. Mallinson in its construction. Another stand of this type, where a simple dignified effect has been produced out of the material exhibited, is that of Masonite, Ltd., and Mr. Scott, the architect to the firm, has produced a pleasing design.

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Among the moderns is the glass exhibit of the London Sand Blast Decorative Glass Works, Ltd., which is a revelation of what can be done in this material. The stand, with its silver walls, glass ceilings, coloured and etched panels and modern tubular furniture, contains an effective picture made up of coloured plate-glass. Another modern is the Crittall Manufacturing Co., Ltd., which is plain to severity, but only thus displays the more effectively the various forms of metal windows. A pleasing feature is the staggering of the bays which relieves the squareness, which otherwise would be monotonous.

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The Venesta stand, designed by Le Corbusier, is not the violent shock one might expect. From the author of *Vers un architecture* I expected something uncompromisingly rebellious, a violent reaction against its humdrum neighbours. But, generally it consists of a Plymax ceiling and pillar and a streamline wood casing to one of the columns of the gallery. Within this casing has been schemed a little cupboard. But for the rest, the various exhibits are arranged in a most rational manner.

Two other moderns are to be found in the Empire Hall. One is the stand designed for the Anglo-Colonial Trading Corporation by Mr. Emberton, the architect of the new Olympia building; this is a simple, straightforward stand, with good lighting effect. The other is that of Sika, Ltd., which arrests the attention on account of its startling colour scheme. In this part of the Exhibition Messrs. Haywards have a well-designed stand by their architect-director, Mr. Davis, which includes an interesting lighting effect of a metal and glass canopy, where the hidden lights shine through deep-coloured green glazing.

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The gas companies cannot display themselves to advantage without an architectural setting, and have produced two good stands. The South Metropolitan Gas Co. have a stand in light-cream colour, with a deep overhanging roof, ornamented at the corners with a modern light fitting. Mr. Tapper, architect to the Gas Light and Coke Co., has designed a series of rooms in which the various fittings and gas fires are well displayed. The whole of this stand, both within and without, presents a most pleasant colour scheme, and the little windows give just that sense of fun which is fitting in an ephemeral building. Messrs. Candy & Co., Ltd., have built a loggia of tiles against the wall of their stand and in it have arranged two small niches of dark-blue tiles which produce a very telling effect with their narrow jointing. Perhaps, Messrs. Carter & Co. have an unfortunate " pitch " in the Exhibition, for their obelisk, with its chromatic cap and base, is partly hidden by other stalls until one almost falls over it. But one of the jolliest things at Olympia is the peep through a brightly coloured side opening of their stand at a tiled wall panel within. For a moment one has a vision of Spain and Algiers.

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Much has been said in praise of the " Silent House," but Mr. Trystan Edwards's schemes of decoration also deserve mention. The rooms are all modern—but not too modern to be dwelt in by mere man. During my inspection I overheard a lady say : " I don't like these silent rooms. They are so creepy ! " While in the gallery one should salute in passing the stand of the Council for the Preservation of Rural England. Here, I felt, sits the genius, friend of the architect, who watches over these materials and processes so that they may be used to adorn and not disfigure the English scene.

A GREAT STORE

The gradual movement of departmental stores towards Oxford Street strides forward with the building of Gamages enormous store on a site near Marble Arch. This very imposing building is remarkable as being the only example, to my knowledge, of the combination of a great store with residential flats. Two floors will be occupied by the store, with all the space above given over to flats of quite fabulous magnificence. The result of this combination in the façade of the building is to give a dignity unusual in a commercial building, a character quite naturally unattainable where you have floor after floor of selling space to be lit as adequately as large windows can light them. This feeling of quiet dignity should help to attract the sort of people who like quiet dignity in their shopping; and as this is what all the advertisements seem to suggest is to be the future spirit of the enterprise, Gamages should start upon their new life with every encouragement.

ASTRAGAL

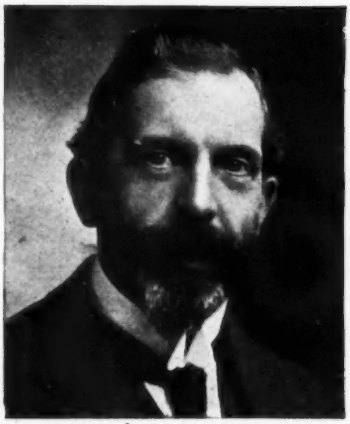
OFFICIAL ARCHITECTURE

The Debate at Olympia

A DEBATE on "Official Architecture," under the auspices of the Association of Architects, Surveyors and Technical Assistants, took place in the Conference Room, at the Building Exhibition, Olympia, London, on Saturday last, the chair being occupied by the Right Hon. Lord Riddell, HON. A.R.I.B.A.

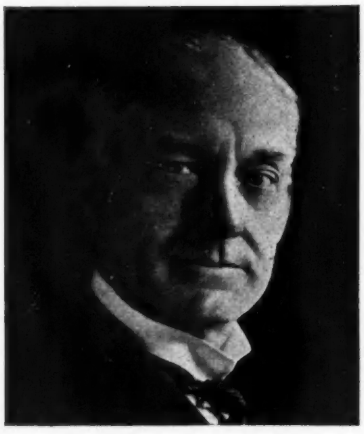
The Chairman said the subject of official architecture had been much discussed for some years, but this was the first time that both sides had been brought together with a definite issue. For the purpose of this discussion the term "official architect" meant a departmental architect engaged for the whole of his time on a salaried basis. A private practitioner who undertook official duties during a part of his time would not be regarded as an official architect for the purpose of the debate. The aim of the debate was to promote a better understanding of the whole subject, and not merely to provide an arena for a gladiatorial combat.

Mr. R. Wynn Owen, F.R.I.B.A. (Architect, L.M.S. Railway), in opening the debate, said it was essential that anyone taking part in the debate should examine the precise wording of the terms of reference and so obviate any waste of effort upon side issues. He therefore at the outset moved "That the cause of architecture is served equally by the official architect and the private practitioner." He said, in order to discuss the subject effectively they must at the outset arrive at a definite and clear-cut conception of its essential elements. And what were those elements? They were (1) The cause of architecture; (2) the official architect; (3) the private practitioner; and (4) the quality of service rendered by each of the two types of architects—official and private practitioner—to the cause of architecture.



Mr. H. V. Lanchester.

It would be noted that they were not asked to discuss the comparative service of official architects and private practitioners to the public, private clients, or to the architectural profession, but only to the cause of architecture. What was the cause of architecture? How many of those present, who had practised architecture for years, had formulated for themselves any clear definition of architecture. In his view the elementary definition could be expressed in two words, "beautiful construction." He asked them to note the words "beautiful construction" carefully, not "beautified construction," because "beautified construction" implied that the beauty was applied and so was not inherent, and, as such, was not architecture. The demands of gravity and other natural forces could be met by construction or engineering, but architecture, while meeting all those demands, must also satisfy the more subtle demands of beauty.

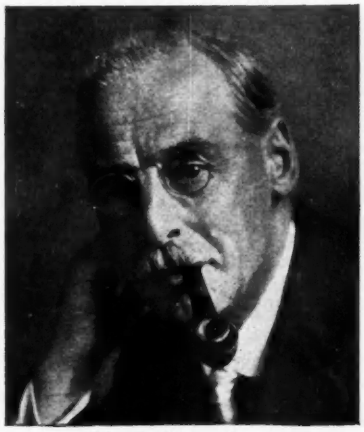


The Rt. Hon. Lord Riddell.

The beauty must be an inherent, integral element of the construction, which it would permeate from its conception to its ultimate materialization. In fact, architecture was to a structure or building what expression was to the living human face, i.e. the reflection of the life or soul within; and as a dead face still had features, so a building might be a collection of architectural features and yet be devoid of the living soul reflection which alone could elevate it from the category of engineering to that of architecture.

Architecture was therefore that living soul of our art which quickens and imparts expression to our work—revealing its construction through a tissue of beauty, which imparts to and presents our construction in that softness of outline and form which muscle, tissue and flesh impart to the bone structure of the human body, which was, he believed, the acme of natural beauty; and incidentally, in like manner, expressing its purpose or the life within. This, then, is architecture, and its "cause" is its maintenance, its development, promotion and advancement. Then, precisely what was an architect? A dictionary would doubtless say, an architect was one who practised the art of architecture.

An official architect was one who undertook to perform the functions of, or to officiate as, an architect exclusively for one specific employing body or client for an agreed remuneration, regardless of the volume of work. Official architects were retained by His Majesty's Government in various departments, the most obvious of which was H.M. Office of Works; by counties, municipalities, educational and ecclesiastical authorities, railway companies, and a large number of industrial and commercial undertakings. Their number was legion, and at the present time they probably represented approximately 40 per cent. of the total membership of the Royal Institute of British Architects. In this category he included not only principals, but all qualified assistants, who as such were architects. On the other hand, a private practitioner in architecture was one who had conceived the idea that by inherent faculty, training and scholarship, he was adequately qualified effectively to perform the functions of an architect, as he comprehended them, took an office or chamber, supplied himself with the



Mr. R. Wynn Owen.

necessary equipment, and usually upon a brass plate indicated to the public in general that he was at its service, i.e. that he was prepared to carry out any architectural work ostensibly for a remuneration in accordance with the scale of charges of the R.I.B.A., but as anyone was entitled to practice as an architect, the remuneration might vary in direct ratio to the architect's self-esteem. In this connection he desired to say that though what he had said defined a private practising architect, the office and brass plate were not necessarily the hall-mark of an architect.

An architect was in fact one who, by training and scholarship, had proved himself to be possessed of that knowledge which was essential in the individual to the production of architecture, quite regardless to the possession of an office or brass plate.

As a tree was known by its fruit, so was an architect known by his work, and the only effective test or measure of his services to the cause of architecture was the quality of his output—i.e. the quality of his accomplished work.

Continuing, Mr. Owen said here he came to the touchstone of the subject—viz., the question, "Was the accomplished work of the official architect equal in quality to that of the private practitioner?" and to this question must of necessity be added the words, "in the aggregate," because, as one star differeth from another in glory, so also did one architect differ from another in inherent ability, whether he be acting officially or as a private practitioner. To put it tersely, there were architects and architects. There were also estate agents, auctioneers, engineers, surveyors, valuers, decorators, speculative builders, and various others who conceived the notion that they also were architects, in complete inability to appreciate that their works eloquently deny their conception and acclaim their innocence of a comprehension of the rudimentary elements of the art.

As an official architect and the opener of the debate on the affirmative side, it was only incumbent upon him to prove equality of service to the cause of architecture to establish his case. The onus of proving superiority of service on the part of official architects or private practitioners rested entirely upon Mr. Lanchester if he would prove his case, and he claimed that he must include amongst private practitioners the company of ubiquitous and promiscuous gentlemen to which he had just drawn attention, because, in accordance with the accepted interpretation of the term, they practised as architects. Now, what was the general conception of the official architect? Thirty years ago all architects were private practitioners, while the comparatively few official appointments of that time were invariably held by ill-trained men possessed of but little knowledge of architecture or design, and having no appreciation of professional status—men who frequently, and often unconsciously, deluded themselves by the use of the term "practical" applied to themselves into the belief that they ranked amongst the successors of Inigo Jones, Wren, Pugin, or Sir Gilbert Scott.

Then there was the average official architect of thirty years ago, but from what he gleaned from the expressed opinions of a certain element amongst present-day private practitioners he had a more than shrewd suspicion that this was the conception with which a very large number of private practising architects deluded themselves today in regard to official architects.

In this matter, however, as, he feared, in some other modern developments approaching to architecture and the architectural profession, private practising architects had not been marching with the times, and so, from lack of observation, had almost entirely failed to appreciate an almost revolutionary economic evolution which had been, and still was, developing with amazing rapidity in the profession.

The old order of official architects had now faded and passed away, and had been replaced by men of equal education and scholarship with their colleagues throughout the profession, with the result that he had no hesitation in saying that in the not far-distant future the private practising architect would be engaged in an unequal struggle to maintain the standard of his service to the cause of architecture, a struggle in which he would find himself handicapped to keep pace with his official contemporary.

The average private practising architect was already handicapped, and he was not so sure whether this handicap did not even extend to the higher ranks of private practice. And what was this handicap? That the architects of both categories now start from the same mark as regards education and scholarship must be granted by anyone who knew anything of the subject; but while the private practitioner had at all times to work against time, provide his own equipment in the form of office staff, etc., and study the economic exigencies of his practice as a business concern, his official contemporary could proceed with his work unshackled by any such considerations. His equipment was given him, and provided he kept within the limits of economic production, he could bring to bear upon his work a mind entirely free from any extraneous embarrassment.

All but the inly blind must recognize that an immense increase in the number of official architects had been, and was, taking place, and the reason for this was a purely economic reason. We are all creatures of economic development, and it was more than obvious that, for economic reasons, the number of official architects must of necessity increase, for the very simple reason that, in spite of the uninformed protestations of certain elements of private practising architects, architecture was being, and would increasingly continue to be, produced more economically by the employment of official architects than by the employment of the private practitioner. The actually accomplished increase in the number of official architects was the only correct barometer by which the economic aspect of this question could be read, inasmuch as it was a record of facts, and one might just as well attempt to stem the rising tide as endeavour by argument to stay the progress of this development.

Of course, the greatest monument to the official architect was commended to our consideration by the trite but highly appropriate epitaph of Sir Christopher Wren in the crypt of St. Paul's Cathedral: "Lector, si momentum requiris circumspice." How many of them realized that Wren was an official architect and St. Paul's an outstanding example of official architecture. Yet those were facts, and the epitaph applied also to the modern official architect. If they wished to see his monument, look around London and every large city throughout the country, and in many small county towns. He, by reason of his official capacity, was nameless, yet his monument met the eye at every turn.

Continuing, Mr. Owen said, in order to develop his argument to its logical conclusion, he found himself compelled to make reference to modern architectural works in order to demonstrate the equality of service to the cause of architecture which he claimed on behalf of official architects as compared with private practitioners, and he would endeavour to do so by citing well-known modern examples. He spoke solely of the buildings as he saw them in entire detachment from their authors. Was it an official architect who committed the following atrocities in the name of architecture to the everlasting detriment of the metropolis? *a*: Grosvenor House, which had to his mind irreparably ruined the architectural amenities and possibilities of Park Lane; *b*: the Regal Cinema Theatre, which, occupying a magnificent site, had defaced the environment of the Marble Arch beyond

remedy; and *c* : the Cenotaph, which, dissociated from the cogent fact that it was the focus of a very sacred and revered memory, was in itself merely a meaningless, if perhaps shapely mass of masonry, which, if it survived, would one day utterly defy the archæologians of the distant future, inasmuch as it reflects nothing, and might readily be mistaken for a gigantic gate-post or the base of a titanic lamp-standard.

Unfortunately,as in many other things, so in architects, there was often a vogue. The public loved a name; so a building whose official architect was unknown to the man in the street, and often even to the members of his own profession, did not attract the attention which it sometimes deserved. Nevertheless, he would cite for consideration three examples of modern official architecture as nearly as possible comparable with the foregoing examples of the essays of private practising architects : 1 : The London County Council flats at Wandsworth; 2 : the station entrance and office buildings at the corner of Kingsland Road and Old Street, Shoreditch; and 3 : the London and North-Western Railwaymen's War Memorial in Euston Square.

In conclusion, Mr. Owen said he contended that if anyone, who by training, scholarship and experience was qualified to offer an opinion, could obliterate from his mind the personal human element and merely consider the works cited purely as modern essays of architecture, he could not fail to admit that the three last-cited examples were architecturally at least as good as the first three cited, and if he arrived at such conclusion, he must of necessity concede that he (Mr. Owen) had the logical right to affirm " That the cause of architecture is served equally by the official architect and the private practitioner."

Mr. H. V. Lanchester, F.R.I.B.A., in opposing the resolution, said he would deprecate any endeavour to decide the question by a comparison of the buildings erected under the alternative systems; it was easy to pick out good and bad resulting from either. The issue was a much broader one .than this. The " official " method was merely one feature of a general trend towards the organization of activities on socialistic lines, in fact more than socialistic; the term communistic would perhaps be more appropriate, adopting the communistic principle that all activities should be rewarded on a predetermined scale, as in Russia, such a scale providing the maximum variation in reward found to be practicable.

Now, this system was based on a high ideal; it was in its way a religion, but unfortunately, like some other religions, it was far ahead of the ethical standards within the capacity of any but a very small minority, the vast majority in every country being incapable of doing their best without the incentive of a reward proportionate to the effort and skill demanded, and, moreover, any imaginative occupation demanded more freedom in its exercise than the communistic system admitted of. The actual position at the moment did not offer sufficient guidance. It was the tendency towards an ultimate result that they had to consider.

In discussing the relative positions of the independent architect and the " official " one, he would like to make it clear that his view was not that it would be impossible to employ an ideal system by means of which as good architecture would be produced by salaried men, as by those paid by commission. Apart from modern communism, such a system had existed in the past and might revive again; but at the present moment he saw no likelihood of this, and the conditions of official employment were almost always antagonistic to the freedom necessary for a living art. Under the most favourable conditions there were many obstacles to artistic progress, and it was important to eliminate rather than increase these.

We need not make a fetish of our six per cent. This was merely a rough approximation of what might be regarded as a fair living wage for one who possessed the experience and ability to design and dominate building works. This six per cent. might mean, in the case of the independent architect, anything from half down to one-tenth of this sum received as personal remuneration (he was told that the lower figure was quite usual in the U.S.A.), and the architect had not only his responsibilities to the client, but also that of organizing his own office. It might well be imagined that many an architect would gladly unload this responsibility, if while drawing a salary he could retain the same freedom in the design and conduct of his work. We look back with envy at the position of the master mason charged with the erection of a mediæval cathedral. If he could be regarded as representing in function the official architect of today, objections would be difficult to sustain, but sad to say the case was far from similar. While the mediæval mason was expected to concentrate on the problems of design and construction, leaving management and finance to others, the modern architect had to cover the whole ground, and when an official he has even less opportunity of using his own discretion as to what he would delegate than when he is in independent practice.

In order to exploit his artistic gifts to the utmost and get the best out of himself, the architect needed the maximum degree of freedom in the time and place for his work, and the power to adjust the demands he makes on himself to his mentality at a given moment. This was difficult enough under any circumstances, but it was obvious that it was much more difficult for the architect in an official position than for the independent man. Moreover, the latter had much greater latitude in choosing his staff. He could vary the type of assistance he might require to meet the needs of the moment, and the fact that these needs range over a wide field tends to broaden his outlook, to make him more resourceful, and to prevent his work becoming stereotyped.

This was the great danger when an architect was appointed to an official position. The general public was only too prone to demand exactly what it was accustomed to; but this was even more definitely the case with public bodies which were less susceptible to new ideas than individuals, groups having to adapt their pace to that of the slower if not the slowest.

The R.I.B.A. had laid it down that in the case of public works, public competitions were desirable. This was not with the idea of securing more money for the profession (obviously it costs the profession a good deal more), but to raising, by emulation, the standard of ability to the highest degree possible—a line of action which was psychologically sound as compared with the communist view of service independent of reward, which was unsound. As César Daly said in 1861, " We require the competition as indispensable for ascertaining periodically and definitely the direction of architectural ideas."

The extension of official methods would extinguish the competition which had done so much to advance the standard of efficient planning, and to a less extent of imaginative design. We should lose this valuable incentive to the study of modern requirements and the expression of those in terms of architecture. Instead of this, there would be stagnation and a tendency to repeat standardized plans and modes of expression.

Mr. V. L. Nash, A.R.I.B.A., in support of the motion, said he was glad that Mr. Owen had made the necessary premise that official architects and private practitioners started from the same mark as regards training and competitions, because that was a point which was frequently overlooked in discussions on the subject.

[*A report of the other speeches made during the debate will be published in our next issue.*—ED. A. J.]



A view of the main front from the east. The open doors in the centre give direct access to the assembly hall.

AN OPEN-AIR SCHOOL IN DERBYSHIRE

DESIGNED BY GEORGE H. WIDDOWS

THE Staveley Hollywood Council School, Staveley, near Chesterfield, was erected as a junior school to accommodate 340 children.

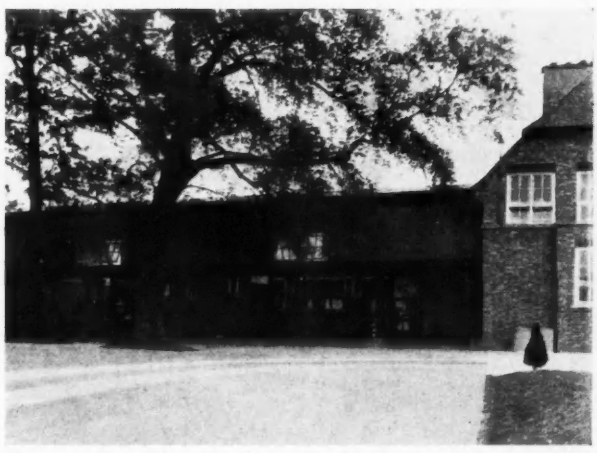
The site, a little over four acres in extent, was presented to the Derbyshire Education Committee by the Staveley Coal and Iron Company. On the site are many trees, and the school has been so planned that these have been disturbed as little as possible.

The school consists of eight classrooms, assembly hall, boys' and girls' conveniences, staffrooms, cloakrooms and medical inspection department. It follows the usual lines of the well-known Derbyshire open-air type of school. As the outcome of the erection of the North Wingfield experimental rooms in 1913, all Derbyshire schools are planned on these lines, and consideration is given not only to open-air treatment but also to the effect of beautiful surroundings on the life of the children. In order to meet this requirement, the school is placed on a large site, of which every natural advantage has been taken. The ground immediately around the school and in the courtyards is laid out as gardens with shrubs, rose trees, flowers, etc., as will be seen from the accompanying photographs. A belt of trees runs round three sides of the school.

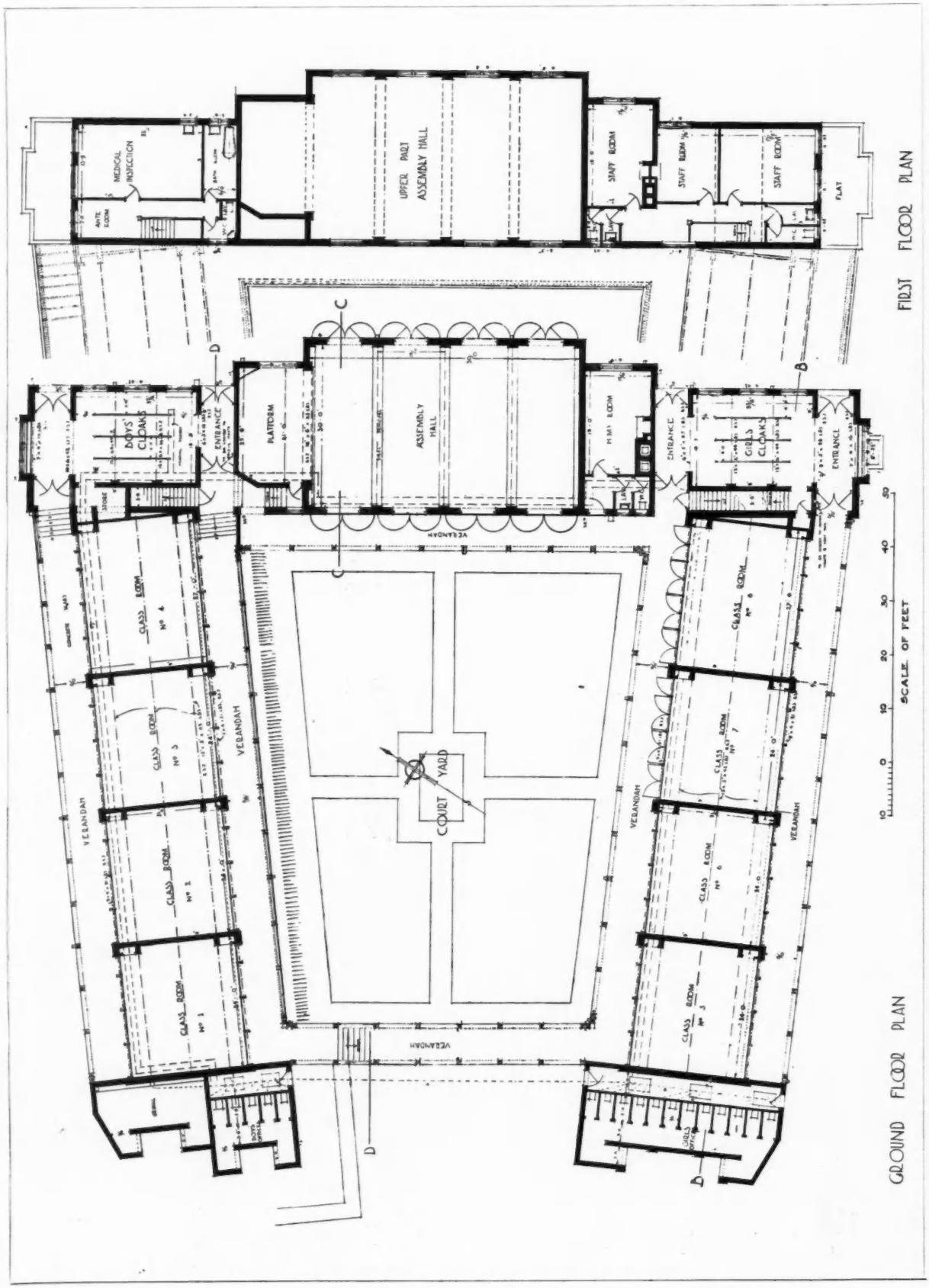
The assembly hall is planned on the main front of the school, and direct access can be obtained through double doors, as shown in the above photograph. The doors are repeated on the other side of the assembly hall, thus allowing an uninterrupted view of the courtyard from the ground in front of the school. The headmaster's room adjoins the assembly hall, and is flanked on the other side by one of the four separate entrances on the main front. These entrances, situated on either side of the girls' and boys' cloakrooms respectively, lead to the verandas running along both sides of the two wings containing the classrooms. Six of the classrooms are 24 ft. long and 21 ft. 6 ins. wide, and of the remaining two, one measures 27 ft. wide by 21 ft. 6 ins. long and the other 27 ft. 6 ins. long by 21 ft. 6 ins. wide. Above the girls' cloakrooms and the headmaster's room are the staffrooms; above the boys' cloakroom is the medical inspection room. The school was officially opened last April.



Looking along the south-east veranda, the doors of which give access to the classrooms marked Nos. 5, 6, 7, and 8 respectively on the plan reproduced on the following page. The open door on the extreme right of the photograph leads to the girls' cloakroom.



The south-east veranda, looking directly into the classrooms. The doors can be widely opened, thus allowing the maximum amount of air to penetrate into the classrooms. The windows on the right light the entrance to the girls' cloakroom and the staffroom above.

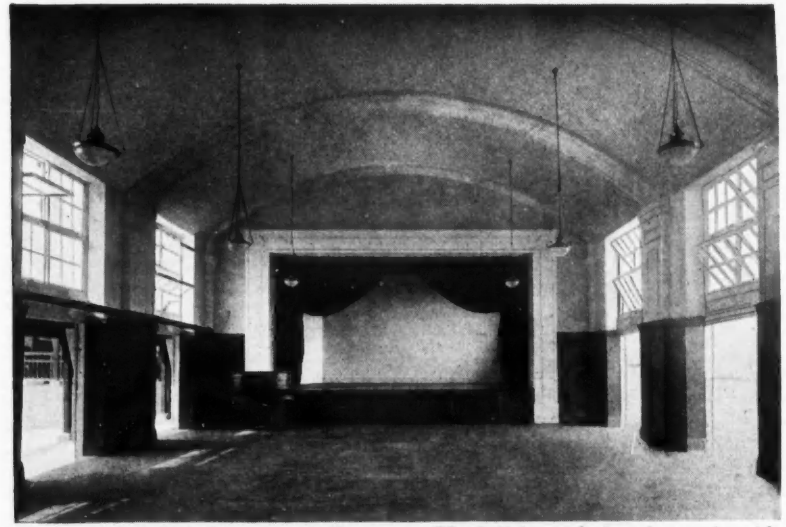


Ground- and first-floor plans. The school consists of an assembly hall, medical inspection department, staffrooms, cloakrooms, boys' and girls' conveniences, and eight classrooms, providing accommodation for 340 pupils. It is planned on the usual lines of the well-known Derbyshire open-air type of school. Consideration is given not only to open-air treatment, but also to the effect of beautiful surroundings on the life of the children.

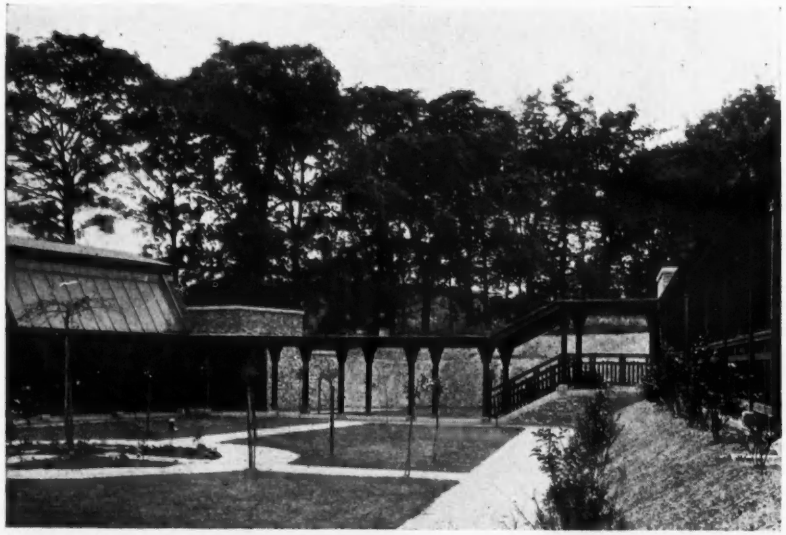
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A view of the assembly hall from the westerly corner of the veranda, which runs round three sides of the courtyard. The photograph was taken from the steps shown below.

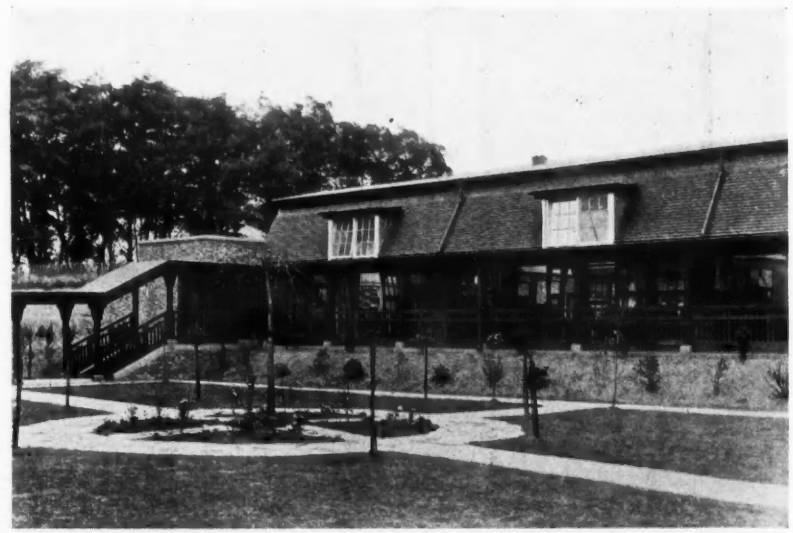


The assembly hall, looking towards the stage. The hall is 50 ft. long by 30 ft. wide. The doors on the right lead to the main front, and those on the left to the courtyard.



Staveley Hollywood School]

The veranda connecting the two wings, which house the various classrooms. A belt of trees, which runs round three sides of the school, has been disturbed as little as possible.



[*By George H. Widdows.*

The north-westerly wing contains classrooms 1, 2, 3 and 4. The ground around the school and in the courtyard is laid out as gardens, with shrubs, rose trees, flowers, etc.

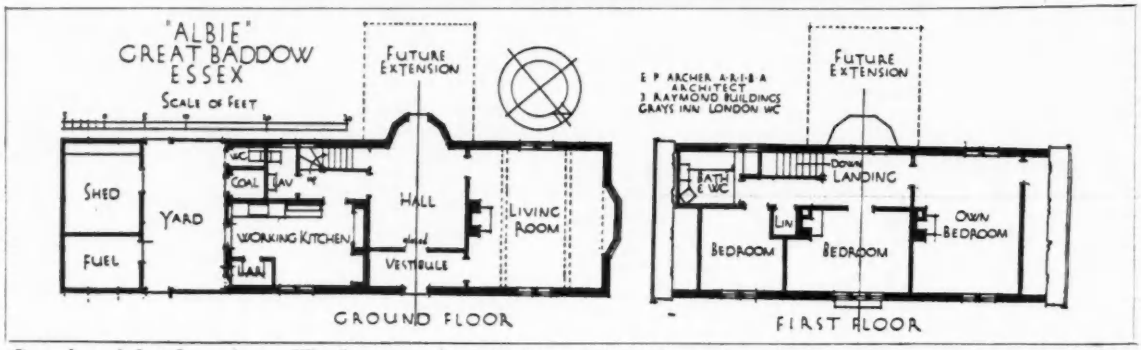
"ALBIE," GREAT BADDOW, ESSEX

DESIGNED BY E. PERCY ARCHER

A view of the south-west front. This house is built on an acre of the vicarage orchard at Great Baddow. The site was a very expensive one, and the house had to be built as simply and economically as possible.



The exterior is finished with traditional Essex plaster panelling to conform with other buildings in the village. The exposed walls are 11 in. hollow and the other walls 9 in. hollow. The roof is tiled.



Ground- and first-floor plans. The floors are of oak blocks, except in the vestibule, lavatory and part of the kitchen. The house is so planned that it may be enlarged at some future time with the minimum of disturbance to the existing work.



The main front from the north. The plaster walls and wood panelling are emphasized by the tarring of the base.



ENGLISH PRECEDENT No. 134

STAIRCASE, No. 44 GREAT ORMOND STREET, LONDON

As in many examples of eighteenth-century domestic architecture, the staircase at No. 44 Great Ormond Street has been made a special feature. The hall is paved in black-and-white marble, and the view on entering from the street is very fine.

The staircase, which gives access only to the first floor, is in three flights. The spiral to the stairs is exceptionally large, and the sweep of the handrail from the newel to the first landing gives a line of great beauty. The treatment of the balustrade to the first-floor landing, with its carved band of oak leaves and acorns, is nicely designed, and the finish of the outside string of the staircase which adjoins the landing is happily stopped by a carved bracket similar to the stairs.

LETTERS FROM READERS

Official Architecture

SIR,—The practical interest in connection with official architecture centres in most cases round the architectural assistant. Members of local governing bodies are beginning—and in many instances have already begun—to understand that their surveyor, excellently fitted as he may be by his training and experience to deal with the work of a surveyor has, nevertheless, not undergone the training that fits him to deal with matters pertaining to architecture. In order to supplement his abilities in other directions they are under the impression that in this direction all that is necessary is to give him an architectural assistant. But a very little reflection will show that in every branch of work or business the ordinary assistant is, in the nature of things, not equal to the principal. No architect, much as he values his assistants, would leave the designing of his important buildings to them. He stamps his work with his own individuality. The desire of almost all competent assistants is to practice eventually for themselves. It is not surprising, therefore, that architects view with misgiving a system that is satisfied with leaving important architectural work to an assistant. What occurs to them is that if the assistant is above the average he would be in practice for himself; if not, it is unwise to entrust him with important work.

Another point which may be supposed to come home to the local councillor more forcibly, perhaps, than a question of æsthetics, is this. An architect working for a client does so with the knowledge that he is exposed to all kinds of criticism, and he has, in particular, a wholesome dread of incurring extras: he has, moreover, the power to cause inferior work or mistakes to be rectified by the contractor. But an assistant, who is only a member of a department, has but little individual responsibility, and mistakes or extras do not necessarily emerge for criticism.

It may be convenient for the local authority to run its own architectural department, but the incentive of competition in ideas is then absent, and the system cannot be held to tend to the advancement of architecture as an art.

J. A. GOTCH

SIR,—I have read with considerable interest the articles and letters on official architecture that have appeared in recent issues of THE ARCHITECTS' JOURNAL.

Only those who have been in practice for a number of years in a provincial city can fully realize the drastic changes that have taken place. Without wishing to be too critical of the R.I.B.A. might I suggest that this is a matter that calls for much more thorough attention and action on its part than the subject appears to have yet received.

The Institute might direct its attention to the following matters: 1: A model set of "Conditions of Engagement" should be drawn up, with which the agreements entered into by all Members of the R.I.B.A. on becoming official architects should comply.

2: Local authorities should be approached by the Institute and the suggestion made to them that where the amount of work exceeds the normal they should form panels of private architects, and spread the work amongst them rather than engage large temporary staffs, whose work is never economic.

3: The R.I.B.A. should draw up a modified scale of fees which it would be prepared to sanction for work carried out under the above conditions.

I believe that the Institute has discussed these matters, but I cannot find any evidence that it has made a very definite contribution to what is undoubtedly the most vital matter affecting the profession at the present time.

J. MANSELL JENKINSON

SIR,—Your JOURNAL is doing excellent work in taking up the case of official architecture. The ordinary town councillor compares the salary of an assistant with the commission of an architect, and thinks he is saving a lot of money. He does not consider that the assistant is usually kept on after the job is finished; that the head gets an honorarium, and that extra clerks, etc., are also required; nor the question of rates, office accommodation, light and heat.

C. CROFT

SIR,—The report in your September 10 issue of a recent meeting of the Northampton Town Council is interesting and somewhat encouraging reading. It shows that the public, as represented by a few members of the Council, are gradually becoming awake to the fact that the best and most economical results are not obtained by placing the work of new buildings, or large extensions to existing ones, in the hands of an official, in this case the assistant architect, but by throwing it open to public competition, or giving it to those practising architects who are most qualified for the work required.

The attention drawn to official architecture by THE ARCHITECTS' JOURNAL will, I am convinced, bear good fruit; but it will be of slow growth unless greater publicity to the matter is given by the general Press, and I consider it is the duty of every architect who has the beautifying of our cities, towns, and country at heart, to assist in this way whenever opportunity arises.

SIDNEY F. HARRIS

Professional Etiquette

SIR,—With reference to the words recently added to clause 3 of the R.I.B.A. Code of Professional Practice, I must remind you that "authoritative" exposition of R.I.B.A. policy is a prerogative of the President and Council, not to be usurped.

An unofficial, unauthoritative but none the less sane and just view of the Code is that not the least important of its aims is the establishment of reciprocal brotherhood in a world-wide fraternity—from which Scotland is not excluded—of professional practitioners.

A Code designed to that end must, of necessity, be subject to periodic amendment, dictated by experience gained in its application, and I should judge that no more can be safely assumed concerning the latest addition than that it is deemed likely to facilitate the cleansing purpose referred to in the sixth paragraph of the letter published over the signature of Mr. William Davidson in your issue of September 10.

Ablutions are necessary to civilized existence, and I cannot believe that any mystery attaches to the fact that an obvious improvement in its cleansing apparatus has been approved and adopted by the R.I.B.A. Council.

G. C. LAWRENCE

Lady Brash Revealed

SIR,—The advertisement noted on p. 366 of the September 10 issue of the JOURNAL seems to be the work of Lady Brash who, it must be supposed has, since 1926, divorced Brash and is embarking on house-building on her own account.

H. B. C.

Gas v. *Electricity*

SIR,—Ready formulæ for comparing the relative costs and advantages of gas and electricity, as referred to by Mr. L. E. Williams in your issue of September 10, are interesting and amusing, but of no other value.

Savile Row suits cost £15, and Strand suits cost 50s.; the ratio is 6 : 1. Again, a bottle of Bass costs 8d.; a bottle of claret, say, 4s.; and a bottle of champagne, say, 20s. Modest Baby Austin cars cost, say, £140, and other cars are obtainable at from £1,500 to £2,000—yet there is a ready sale for *all* the articles mentioned.

Again, the railway companies sell considerable numbers of first-class

tickets, and the fares on such trains as the Golden Arrow are even higher than the first-class fare, not to mention the third-class fare.

The obvious moral is that "good things do not need to be cheap to command ready sale."

The secret of the comfortably warmed room is to instal relatively large areas of warming surface, operating at temperatures of between 80 degrees and 120 degrees F., and to control the temperature of the room automatically. Walls, floors, ceiling and furniture must all be warmed, and the air be comparatively cool, for real comfort. Automatic control ensures that the room will never be too hot or too cold, notwithstanding the number of occupants, the appearance of the sun, etc.

All these desirable features are obtainable with electricity in the simplest possible and most reliable manner, and at a cost averaging 6d. per room per day, in districts where electricity is available at ¾d. per unit. These figures are not the result of formulæ or calculation, but were actually obtained from an office in the Central London area during last winter.

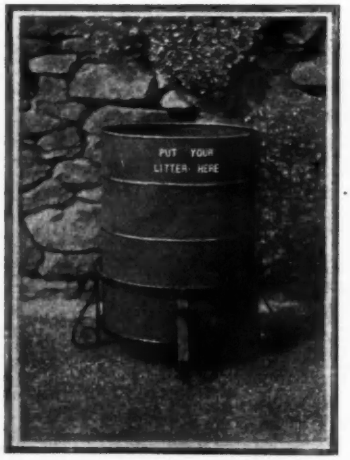
R. GRIERSON

Suggested Litter Bins

SIR,—We were interested in Astragal's note in September 3 issue of the JOURNAL on the Litter Week held in the New Forest, and his suggestions with regard to placing litter bins at the approaches to the villages.

We think, therefore, that you will be interested in some new sheet metal litter bins which we have recently put on the market. These bins are designed with a view to being substantial and practical, and at the same time of pleasanter appearance than the ordinary wire basket type, and would be quite suitable for use as Astragal suggests.

ROGER PEACH
(THE DRYAD METAL WORKS)



A litter receptacle suitable, it is claimed, for parks, cemeteries, etc. It is of sheet iron, galvanized and painted, and is perforated at the bottom.

The Calton Jail Site

Following are extracts from a letter addressed by the Prime Minister to the Edinburgh Town Council regarding the Calton Jail site :

I have been following with some surprise the controversy which has arisen in connection with the buildings to be placed on the Calton Hill, and regret that for one reason or another the proposals of the Government have been allowed to be clouded by so much misrepresentation and inaccuracy. No one knows better than you the very great desire of the Government not to do anything with the Calton site which does not fulfil three conditions : 1 : The use of the site in such a way as will add to, rather than detract from, the appearance of the city; 2 : the co-operation of the Edinburgh City Council; 3 : the approval of the Royal Fine Art Commission for Scotland. I have never yet known an important building put up without the expression of different opinions as to its merits and its defects, but the controversy which has been worked up in this instance is unique in its recklessness. The more recent phases of the agitation, for instance, appear to have been based upon a drawing published in *The Scotsman* of July 24, which has been accurately described as a "complete travesty of the original design." At the present moment the Office of Works is in consultation with the Royal Fine Art Commission regarding a revised layout of buildings, and is awaiting a further expression of views of a more general character by the Commission. When that advice is received the Department will again consider the matter, and if it decides to proceed with the building the final designs will, according to pledge, have to receive the specific approval of the Corporation of Edinburgh. There will also, in all likelihood, be a debate in the House of Commons.

To crowd the Calton Hill with buildings may be utilitarian, but is damaging to the city, and the question must arise before a final decision has been taken as to whether this site is suitable for the Government requirements. Some of us would like to see the hill far more clear than it now is with its jail, but the Government cannot build, merely to suit the site, offices which will give it neither the conveniences nor the accommodation required. The design of the new Sheriff Court House, I think, can be made most appropriate, and can add to, rather than detract from, the appearance of the hill. If the requirements of the large Government offices cannot be set on the hill they must go elsewhere, and as regards that it must be assumed that the mind of the Government is perfectly clear. I notice that proposals are made that the new building for the Scottish National Library should be placed on the Calton Hill. That proposal may be dismissed. I hope that the trustees of the library would never consent to that site. Not only was the gift made to the nation on condition that the library should remain in its present position, but the arguments from a purely library point of view that that condition should be observed are unanswerable. As a trustee of the library and also of the supplementary gift, I should never consent to the Calton site.



Mainly for indoor use, this litter receptacle is suitable, it is claimed, for public buildings, schools, etc.

Settling-Up Honeywood : xviii

BRASH IS STRANDED

BY KARSHISH
(H. B. CRESWELL)

A consulting analyst employed by the architect, Spinlove, has reported that an unpleasant smell pervading the bedrooms is due to fumes from the heating or hot-water furnaces, though by what means they assert themselves in remote parts of the house remains unexplained.

Serious trouble has arisen from the failure of certain paint ordered by the owner, Sir Leslie Brash. Both the builder, Grigblay, and the manufacturers, the Riddoppo Company, deny responsibility, and Brash has referred the matter to his solicitors, Russ and Co.

GRIGBLAY TO SPINLOVE (AUTOGRAPH)

Sir, 6/11/26.

I write confidentially to let you know, as I don't suppose you have any hand in the matter, that I have received a letter from Russ & Coy., solicitors, threatening proceedings for the failure of this new novelty patent supercrawling and crocodiling paint your client insist I use ; but there are others can employ solicitors besides Sir Leslie Brash as he will find out. I never put anyone into Court myself, and never was brought there except for once, and the man who put me there has been sorry ever since and so will this one be; for I have learnt a bit, these last months, about the successes of the Riddoppo Company with their wonderful new face cream—or whatever it is—and if they have any customers left now, they won't have any after I have done with them. No one had ought to be better pleased than me for the old gentleman

to go on and see what he will get for his trouble; but I am a poor man and have my work to attend to, and it will do me no good being in all the papers, and I think it hard I should have all this trouble put on me because I used the stuff on the understanding I was not responsible, which I should never have done except to oblige; so I just take the liberty to write and ask you, sir, as you know how things are, to drop a hint to Sir Leslie and put him in better mind of where he stands, for this Riddoppo soup of his has given the belly-ache to near everyone who has tasted it, and he will surely lose his case if he tries to make me responsible for the mess at Honeywood.

You will pardon me writing, but thought just as well as it will save a lot of trouble for everyone if the old gentleman can be persuaded to see reason just for once.

I am, sir,
Yours truly,

SPINLOVE TO GRIGBLAY (CONFIDENTIAL)

Dear Mr. Grigblay, 7/11/26.

As you know, I am entirely on your side in this dispute about the painting as Sir Leslie Brash well understands, but he shows extreme impatience whenever I refer to the matter. However, he certainly ought to be told of the general failure of Riddoppo of which you speak, and I will drop him a hint of it.

I have just received Pricehard's report and will write tomorrow.

Yours truly,

I have several times expressed the opinion that it was long ago Spinlove's duty, as architect, to take control of the position and guide his client's discretion; and have deprecated his policy of sitting on the fence—though, in point of fact, his was no policy, but a mere instinct of weak evasion. I have now to confess, however, that his inertia has given him a position of neutrality which astute, active diplomacy might well fail to accomplish; he has avoided falling out either with Grigblay or with Brash, and has still an opportunity, if he can but use it, of intervening to prevent the miserable disaster of an action at law.

SPINLOVE TO GRIGBLAY

Dear Sir, 8/11/26.

I enclose copy of Mr. Pricehard's letter covering his report of the tests he made. The question is, How do the fumes get into remote bedrooms when they are not noticeable downstairs; and how is the nuisance to be cured? It is clear there must be some serious flaw in the building of the house, and I must call on you to find out what it is and to let me have your proposals for putting things right, and without delay, for this is a serious matter as you will see from what Mr. Pricehard says of the poisonous effect of the fumes. I am not writing to Sir Leslie on the subject until I can give him your explanation and tell him the defect is being remedied.

Yours faithfully,

Spinlove's readiness to dissociate himself from the disaster and to deny all sympathy to Grigblay, is not only wrong in policy, but has the appearance of being thoroughly bad-natured. For two years Grigblay has served Spinlove as a devoted colleague, and on many occasions has helped him out of difficulties with his wise advice and kindly forethought; and Spinlove must know perfectly well that this defect in the building, whatever it may be, is not Grigblay's fault but his misfortune. Grigblay has before endured similar treatment from Spinlove, with patience; and he no doubt understands that these gaucheries are merely due to fright and want of self-confidence in the person he probably thinks of, and perhaps speaks of, as "the young gent."

BRASH TO SPINLOVE

Dear Mr. Spinlove, 8/11/26.

I herewith transmit enclosed communication I have received from Mr. Cohen Snitch. This is the gentleman — may I remind you — who endeavoured to foist upon me fraudulent plans of cottages which, it eventually transpired, were a purloined illegal infringement of another practitioner's copyright. You may have observed that within the last few months a number of wretched little common villas have been springing up like mushrooms —or rather I should more appropriately say like *toadstools*—on either side of the Honeywood Hill Road after it leaves Thaddington Village. These abortions must represent the Honeywood Garden Estate the fellow speaks of. The villas so far built are all exactly similar replicas of one another, and we have been greatly annoyed to observe that they reproduce the form of the bay window, chimney and gable of the little pretty Den projection of Honeywood Grange which, as you know, is visible from our entrance gates; and the names all up the road, "Honeywood House," "Honeywood Lodge," "Honeywood Manor" are also an intolerable violation of my rights! Has it come to this, that a gentleman may scarcely call his house his own? It is clearly evident that Mr. Snitch intends to retaliate on my refusal to submit to his attempted fraudulent extortion of fees, and I shall have no hesitation whatever in taking all possible necessary steps to stop his proceedings and compel him to alter his designs or even to pull the places down. I therefore desire you will be so obliging as to notify me exactly what are the liabilities for the infringement of my copyright, of which this must be a most flagrant example.

I am even more disturbed at this threat of Mr. Barthold—who is an auctioneer and house-agent in Marlford —of covering the land up to the eastern boundary of my Honeywood property with the insupportable eyesore of shoddy bungalow abominations, though I apprehend that the whole proposal may be a monstrous pretext for bluffing me into extortionate disbursements. The price this saucy fellow asks is nearly three times the rate at which I acquired my Honeywood estate, and approximates to seven times the capitalization of the accommodation rental, and nine times the agricultural value—a most unheard-of proposition. The whole thing is intolerable and beyond bearing, and I have still to consider what suitable reply I can make to the man. If you have any views on this matter I shall be grateful if I may have the advantage of knowing them.

I regret to intimate that the repulsive emanations continue to cause us considerable discomfort, and shall be obliged by the anticipated early communication from you anent the ascertained reason of the odoriferous conditions.

Yours sincerely,

(ENCLOSURE) SNITCH TO BRASH

My dear Sir, 4/10/26.

Re Honeywood Garden Estate. I beg to think you may be interested to know that my client, Mr. Vincent Barthold, who is taking an active local line in this national housing proposition, is considering extending his development up Honeywood Hill to boundary of your property as preliminary to lay-out of back land with Rural Bungalow Allotments the same as has proved so popular below Westerham Hill, as extension of motor bus service to Wedgefield Junc. offers fascinating rural amenities to Londoners.

As adjoining owner, Mr. V. Barthold begs to hope you might be interested to support same and join small syndicate he is contemplating with a view to flotation of a Honeywood Dainty Houselets Co., and will be glad to hear from you privately *re* same.

Mr. Barthold is willing to dispose of part or whole of same, freehold, at from £150 (back) to £350 (front) per acre according to location.

If this proposition interests you, shall be glad to hear from you at early date as other investors are in the market, and will supply further particulars on application.

Yours faithfully,

The Honeywood File recounts how Brash, with the idea of reducing cost, employed this same Mr. Snitch—who practises locally as an architect and surveyor—to build a block of cottages; and how Mr. Snitch

sold Brash the design of another architect which he copied, for the purpose, from an architectural magazine. Spinlove warned Brash that if he used the plans he would make himself liable to an action for infringement of copyright, and this is what Brash has in mind when he notices features of his own house travestied in the villas of "Honeywood Garden Estate."

It is no new thing for commercial enterprise in housing to find profit in the execration its achievements provoke, by acquiring land and then coercing the owners of adjoining houses to buy it at an enhanced price under threat of building on it; and just as the highwayman was obliged sometimes to shoot so that his formula "Your money or your life" might be respected and yield a due harvest, so "Buy or we build" is by no means an empty threat, even when there is no intention of building. A cottage, however hideous, can readily be let, and is a profitable investment when it serves as a warning to rebellious mansion-owners. I know of a remote, solitary, bleak, raw red brick labourer's cottage comprising four stark walls and a drain pipe, set in a break of the hedge on a country road. Its position—which would be readily understood if cottages were jetisoned from passing aircraft—is explained by the entrance drive to a large private house on the opposite side of the road, up which the cottage stares unwinkingly like a village idiot entranced. It is there, as is notorious, because the owner of the mansion refused to buy the field in which it stands.

This is a happy instance of the way commercial enterprise advances the cause of civilization by establishing blackmail as a recognized source of revenue and augmenting the Wealth of the Empire. By building cheaply and rapidly, instead of in the old-fashioned way, not only are larger profits immediately accrued, but future profits are assured by the early need for renewal, and good money may be earned merely by refraining from building.

GRIGBLAY TO SPINLOVE

Dear Sir, 10/11/26.

What Mr. Pritchard says is pretty much what I feared. Of course there is some stupid thing been done somewhere and it will be a job to find out where, for what has happened is that fumes from the heating furnace get into the hollow of the outside walls; and one of those places it gets out again is, in my opinion, where the joists of upper floors bear on the 4½-in. inner thickness of outside walls, and so lets the air be drawn from the hollow into the space between joists and through joints of flooring into the bedrooms. I have had a look at the plans and you will find that those particular bedrooms is just where it can get; for there are no cross walls cutting off the hollow and the joists in those rooms run across to the outer wall and not parallel with it; and another thing that fixes it is the way these fumes came on worse than before when the heating furnace was started up again a few weeks ago, for as the work dried out in the summer the ends of joists, where they were built in, would shrink and leave a bit more room for the fumes to leak through than when the work was newly finished. The joints of flooring will not lie so close now, either. Well, we know the fault is in the heating flue for the complaints stopped just when the fire was drawn for the summer; but where the fault is, and what to look for is the difficulty, unless we open up the flue till we find out. I have never had the like of this happen in any building of mine. None of my bricklayers would play hanky-panky with a chimney flue or leave out a brick, which is what looks like; and Bloggs would not let them if they wanted to. However, there cannot be many places where a little thing wrong would make all that difference, and Bloggs will be likely to say. I have written him today.

Yours faithfully,

Here, then, is the explanation of the famous "drains"—otherwise "odoriferous effluviums"; but the defect giving rise to the nuisance is still a mystery; for carelessness which would leave an opening from a chimney flue into a hollow wall space would seem impossible of men employed by a builder of Grigblay's standing, or in work overlooked by Bloggs.

The subtlety with which smoke will find its way through brickwork has long ago established the parging—or plastering—of the interior of flues, and, until quite recently, the parge was always worked up with a proportion of cow dung which does not develop cracks as a lime and sand rendering is apt to do. Fifty years ago bricklayers began to resist using this tradition parge—probably because its composition seemed ignominious—and as the mortar in which the bricks are laid, now commonly used to parge the flues, seems to be all that is required, it may well be that the traditional parge was, like so many craft-methods, a survival of an immemorial custom.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 12/11/26

I desire that you will be so obliging as to carefully peruse the enclosed copy of a letter I yesterday received from Mr. Russ anent Riddoppo, and of correspondence therein referred to, which I transmit herewith preparatory to your meeting me for the purpose of discussing the position of affairs on an early day. You will observe that I refrain from all comment. Such views as I have to communicate are, I apprehend, more fit to be the subject of verbal rather than of literary intercourse; but you may tell that infernal scoundrel Grigblay that if he or any of his damned workmen put so much as their noses inside my gate I will have them thrown out into the road.

Yours sincerely,

PS.—Pray excuse a pardonable asperity of diction.

(ENCLOSURE 1) RUSS AND CO. (SOLICITORS) TO BRASH

Dear Sir, 10/11/26.

In accordance with the instructions you gave Mr. Russ in your interview with him on September 28th, we entered into communication with Messrs. the Riddoppo Coy., Ltd. (and Reduced), and subsequently, on receipt of the Company's reply, with Mr. Marston Grigblay, and we enclose copy of the correspondence.

Before we received the letter from Mr. Grigblay's solicitors, of 3rd October, it came to our knowledge that a receiving order had been made out against the Riddoppo Coy. The firm is in liquidation, and from information in our possession we are of opinion that reorganization is extremely unlikely; that the assets will be sold for the benefit of the debenture holders, and that there will be little or nothing left for the unsecured creditors. In the circumstances we do not consider the company worth powder and shot. The debenture holders would allow judgment to go against them by default, as there will be no assets to meet the costs of defence; and as such judgment would only allow you to rank as a creditor you would get little or nothing —certainly not enough to pay your costs of the action.

In view of the position Mr. Grigblay takes and the difficulty of showing him to be responsible without the evidence of the Riddoppo Company of the soundness of the paint supplied; and in view also of the opinion given us by Mr. Chawlegger, we do not consider that you could succeed in an action against Mr. Grigblay. It seems to us, therefore, that the only course for you to take is to withdraw.

Yours faithfully,

So the end of this matter is that, for his sins, poor old Brash is left high and dry. Riddoppo, Ltd. (and Reduced) has gone bankrupt, a fate that overtakes not a small number of such ventures and which offers an additional reason why architects should be wary in experimenting in untried materials. The company's property will be sold to pay the debenture holders; creditors will get little, shareholders nothing, and the only person who is likely to have done well out of Riddoppo is perhaps Brash's influential commercial friend Mr. Ziegfeld Swatmug, who may have bought the rights from the inventor for a small sum, sold them to the public for a large one, and then resigned from the board of directors and disposed of his holding.

[NEXT WEEK: XIX—BLOGGS TO THE RESCUE]

QUESTIONS THAT ARISE

Retaining Wall

P. C. writes: "*Can an adjoining owner claim a notice, in the London area, where a boundary retaining wall, the property of the building owner, is being raised, as shown on the accompanying sketch? The work includes the removal of an iron railing and raising the wall for a height of 4 ft. above the level of the existing coping. The wall on the building owner's side is being strengthened with piers in two places. The ground level on the building owner's side is 7 ft. below the ground level on the adjoining owner's property. I have asked the surveyor to the adjoining owner's property under which section of the Act his client claims a notice, and he replies quoting London Building Acts, 1894, Part VIII. (87).*"

The adjoining owner cannot claim a notice from a building owner for raising on his own (building owner's) wall.

The only action he could take would be an injunction, or a claim for damages for any obstruction of the light to his premises, and as your correspondent does not mention this, I assume that this does not apply in this case.

London Building Acts, 1894, Part VIII. (87), refers to land unbuilt on the line of junction and is applicable where the adjoining owner's land is disturbed by building work on the boundary.

If, however, adjoining owner's building is within 10 ft. of the new work, he could claim to be served with a 10-ft. notice under the London Building Acts, Part VIII. (93), if the building owner is executing the work below adjoining owner's foundations, and likely to disturb them; but the strengthening by piering should not apply, unless any work was underpinned in the operation.

W. A. D.

Tiles or Thatch

C. L. writes: "*I have always thought of tiles as being one of the traditional roofing materials of the Old Country. My dream of England (I am Colonial born) is a farmhouse with great tiled gables and long sweeping eaves. Recently when motoring in Norfolk I had a talk with a thatcher. He surprised me by speaking of tiles as if they were newer than thatch, and had been introduced to do his forefathers out of their living. Is this a fact, and is it more correct to use plain or pan tiles, as I want to build a small place for a few years while my boys are being educated in England?*"

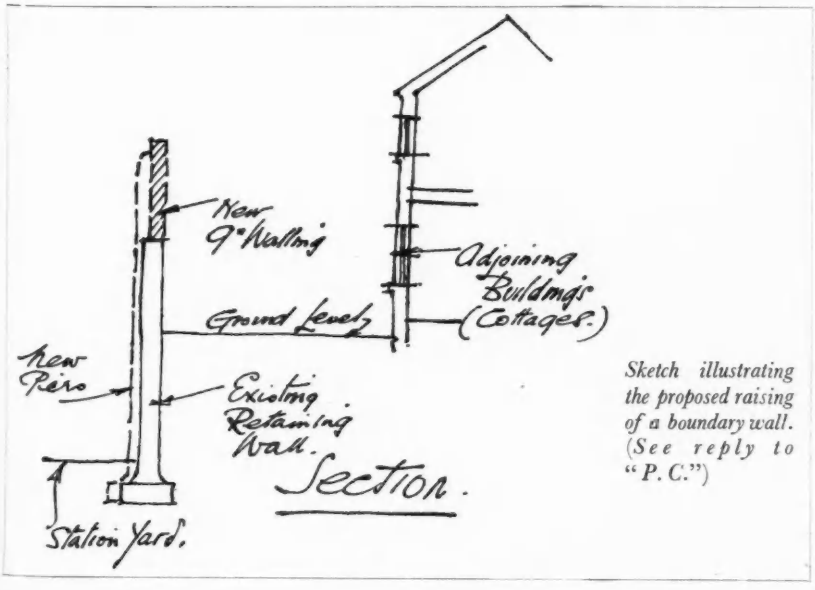
In the eighteenth century both plain and pan tiles were manufactured in England, but the former were originally imported from Holland. In 1722 an Act of Parliament specified their size as not less than 13½ ins. long, 9½ ins. wide and ½ in. thick, and by the end of the century their use was becoming general.

The origin of plain tiles is obscure, but they were being made in 1477, for an Act of Parliament regulated their size to 10½ ins. by 6¼ ins. by ⅝ in. All tiles were used only in districts where they could be manufactured, and even in counties like Surrey, where their use is common, the earlier forms of roofing were thatch or Horsham slates.

An old tile can be distinguished from a modern "fake" by the nail holes, which in the genuine old tiles are square, to take the oak pegs with which they were invariably hung.

Your correspondent should study carefully the old buildings in the district in which he is building, and he may discover neither plain nor pan tiles to be the "correct" roofing material. I can recommend for much interesting historical information *Development of English Building Construction*, by C. F. Innocent.

L. E. W.



Sketch illustrating the proposed raising of a boundary wall. (See reply to "P. C.")

Local Bricks

M. J. M. writes: "*I am carrying out works in the West Country, in a district where the local bricks are not too good. My specification for general building bricks reads: 'Bricks to be well burnt, square, local stocks.' I have just visited the brickfields and find that the bricks are sold in three grades: (1) Firsts, which are picked out of the main stack and sold as minor facing for such as gate piers, plinths, etc.: the price increased by 10s. per 1,000, for what are called 'picked stocks'; (2) Seconds, which form the main stack from which the above are picked; (3) Thirds, which are generally underburnt and out of shape, and are picked from the main stack. The Firsts are well burnt and square, but the majority of the Seconds, while being fairly well burnt, include a large proportion of bricks with the edges chipped.*

"*The builder contends that he priced for Seconds, which is the local building brick, the Firsts being sold as facings, and therefore he would ask for an extra if Firsts are selected. Can I force the use of the better brick on the ground that the Seconds do not comply with the specification?*"

"M. J. M." has apparently only visited the brickfields or inquired about the local bricks after the contract has started, and here he has undoubtedly made his mistake.

If the best stocks are sold as "Picked Stocks," the specification should have asked for these. In competing for the job the builders are not going to increase their price for brickwork on the assumption that the architect requires something that he does not clearly ask for. There is no doubt that if the bricks which comprise the "Seconds" stock are local bricks for general building work the builder has priced for these, and therefore is entitled to an extra if Firsts are selected.

Your correspondent's only remedy, if he does not wish an extra, is to see the bricks which are badly chipped are thrown out from the loads which come on to the works.

W. A. D.

The partnership between Messrs. William Davidson, F.R.I.B.A., and M. M. Ochterlony, of 2 Coates Crescent, Edinburgh, has been dissolved. In the meantime, each will carry on business at the same address.

THE SKETCH CLUB

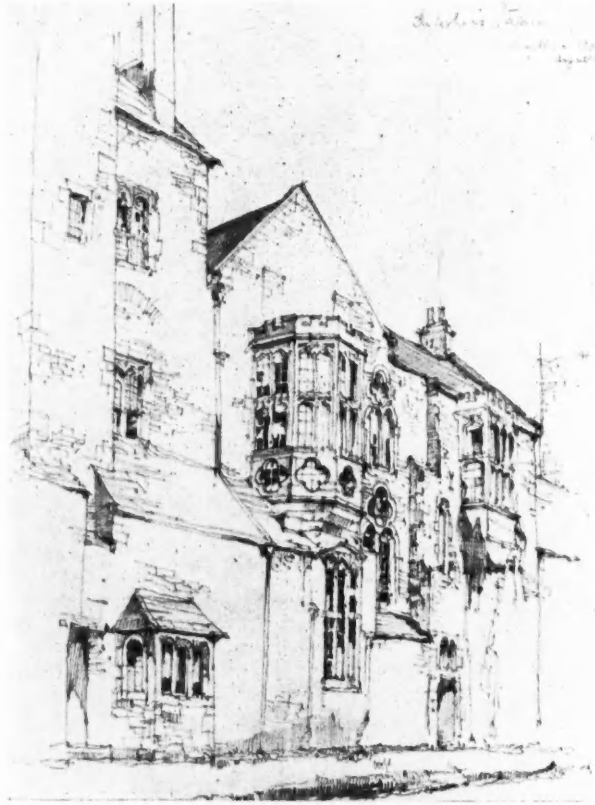
TWELFTH SESSION



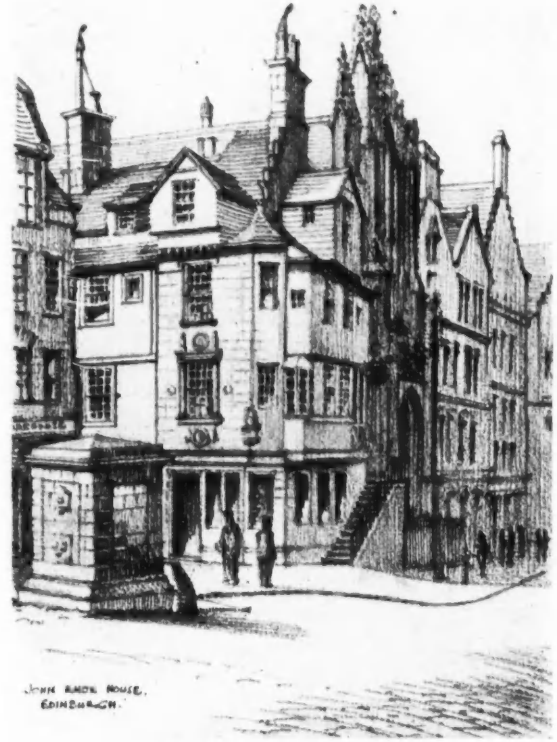
Bakehouse Close, Edinburgh.
By Stanley Brinton. (Pencil : 5″ × 7″)

THE entries for the last of the three Holiday Sketches Competitions have come in and are being arranged for assessment. The response has been, as we knew it would be, considerably greater than for either of the first two. But no one in THE SKETCH CLUB *realized quite* how much. *It has been staggering. Against 65 drawings entered for the June competition and 52 for July, no fewer than 125 have been received for August.*

The badness of the weather after the end of June meant that a number of July entries would be transferred to the following month. We realized that when the July drawings came in—fewer in number and less good in quality than those for June. But there is more in the August boom than that. There is much *more in it! Though we say it ourselves, the Competitions have been justified beyond the* CLUB'S *wildest hopes.*



The Bishop's Palace, Wells.
By Alan Reiach. (Pencil : 8″ × 11″)



John Knox House, Edinburgh.
By Stanley Brinton. (Pencil : 5″× 7″)

The pick of the August lot will be placed before members at our next session, on Wednesday, October 8. It is a fine lot, and will easily prove the best display of sketching ability the CLUB *has witnessed so far. No member should miss it. Also, there are three prizes instead of two for this occasion—one of £10 and two of £5. The names of the winners will be announced that day. The* CLUB *hope all its members will agree that the best men have won.*

This week we hang a further selection from the July entries. The work of the prizewinners, Mr. R. Knight and Mr. V. Warrilow, was shown a fortnight ago. Here are some runners-up — and a few others besides. Not a bad yield, on the whole, for one of the wettest holidays in the memory of a seafaring nation.

Will "Pentode," whose sketches are illustrated below, kindly send his name and address to the Editor?

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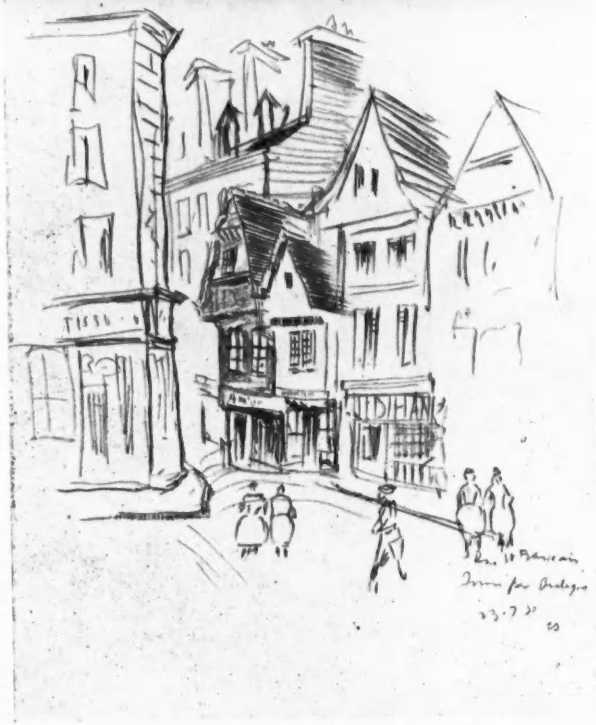
The Bishop's Palace, Wells.
By Alan Reiach. (Pencil : 8″ × 11″)

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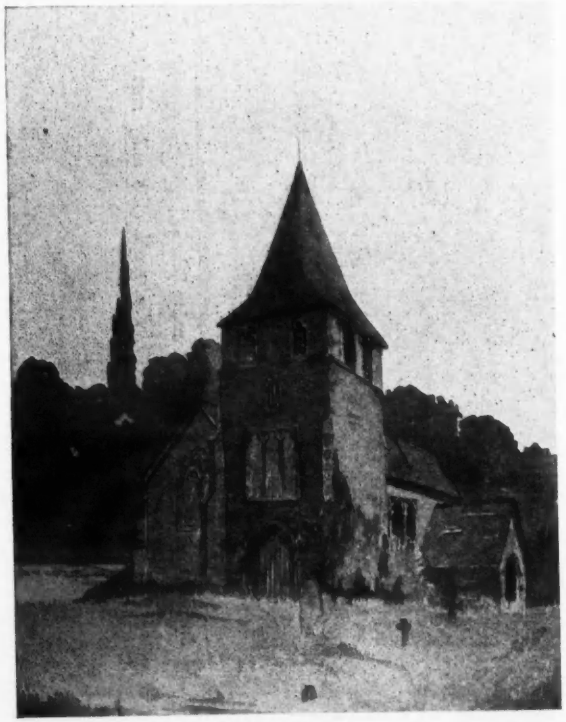
A Barn at Salford, Gloucestershire.
By Robert S. Morton. (Crayon : 12½″ × 9″)



Rue St. Français, Quimper, Bretagne.
By Everard Sheppard. (Pencil : 8″ × 10″)



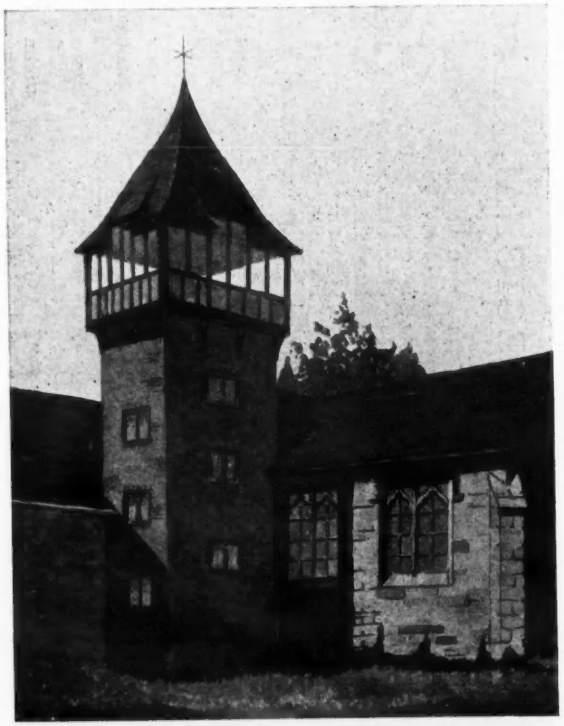
Rue Marie Stuart, Roscoff, Bretagne.
By Everard Sheppard. (Pencil : 10½″ × 8″)



Detling Church.
By "Pentode." (Water colour : 9½″ × 12″)



West Lynn Ferry, Norfolk.
By G. McKinlay. (Pencil : 8¾″ × 5″)



The Tower, Maidstone Museum.
By "Pentode." (Water colour : 9½″ × 12″)

A KENTISH REGIONAL REPORT

NORTH-EAST Kent is a region that has provided the scene of some of the most stirring events in the history of England. Situated on the threshold of our capital, traversed by the main land routes to the Continent, and guarding the approaches to the Thames, it has at all times been of immense strategic and economic importance. It is with particular interest, therefore, that Londoners will read the proposals for development and protective measures contained in the report, recently prepared by Messrs. Adams, Thompson and Fry, for this area, which has a population of nearly 360,000 people, and is administered by eighteen local authorities.

After an exhaustive study of existing conditions, the authors have put forward general recommendations for zoning, density and height of buildings, open spaces, roads and the preservation of amenities. The urban zone contains the areas where the population is already concentrated, such as Rochester, Chatham, Maidstone, etc.; the industrial zone includes the districts mostly adjoining the Thames Side and Medway Valley, while the rural zone is defined as those parts of the region almost exclusively agricultural. In the last-named zone the average density of four houses to the acre will be the maximum allowed.

Perhaps the outstanding feature of the report is the proposal for an extensive system of regional open spaces of different types, for example: (a) the North Downs between Kemsing and Charing, to link up with the similar downland reserves in adjoining regions, thus ensuring a continuous open space on the ridge of the Downs from Farnham to Dover, approximately one hundred miles long; (b) the woodlands adjacent to such urban centres as Chatham and Gillingham; (c) parts of the Medway Valley; (d) the Sheppey Cliffs.

One chapter of the report contains suggestions for estate developers in regard to the design and materials of new buildings. This goes into very considerable detail and should be useful as a guide to local authorities engaged on housing schemes, and to others who build without the help of a qualified architect. The volume is produced in an attractive but inexpensive form, with some twenty pages of photographs and diagrams, and a folding map in colours of the whole region, reproduced from the one-inch ordnance survey. The authors' numerous proposals should provide a sound basis on which the constituent authorities of the joint committee can prepare their individual town-planning schemes. W. H. T.

North-East Kent Regional Planning Scheme, 1930. Prepared for the North-East Kent Regional Planning Joint Town-Planning Committee, by Adams, Thompson and Fry.

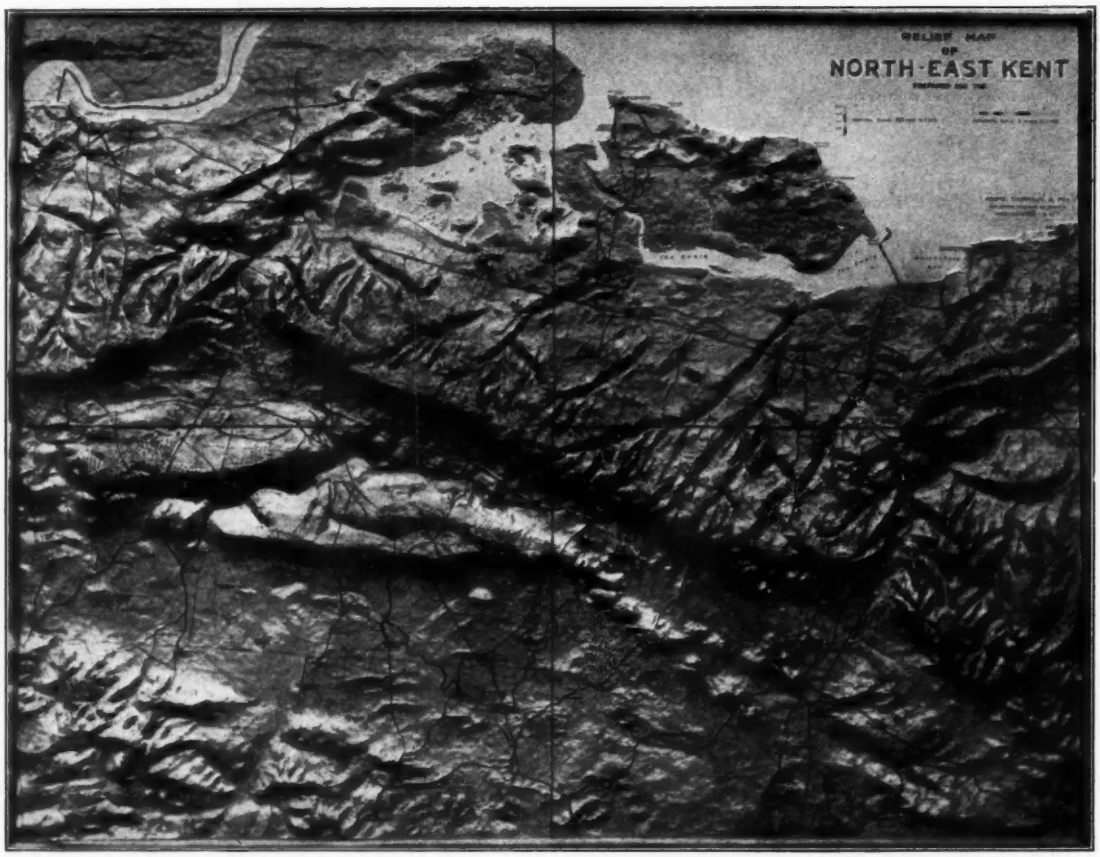
Publications Received

The D.I.A. Cautionary Guide to Carlisle. London: The Design and Industries Association. Price 6d. net.

This England, and Other Things of Beauty. By F. J. Gould. London: Watts & Co. Price 5s. net.

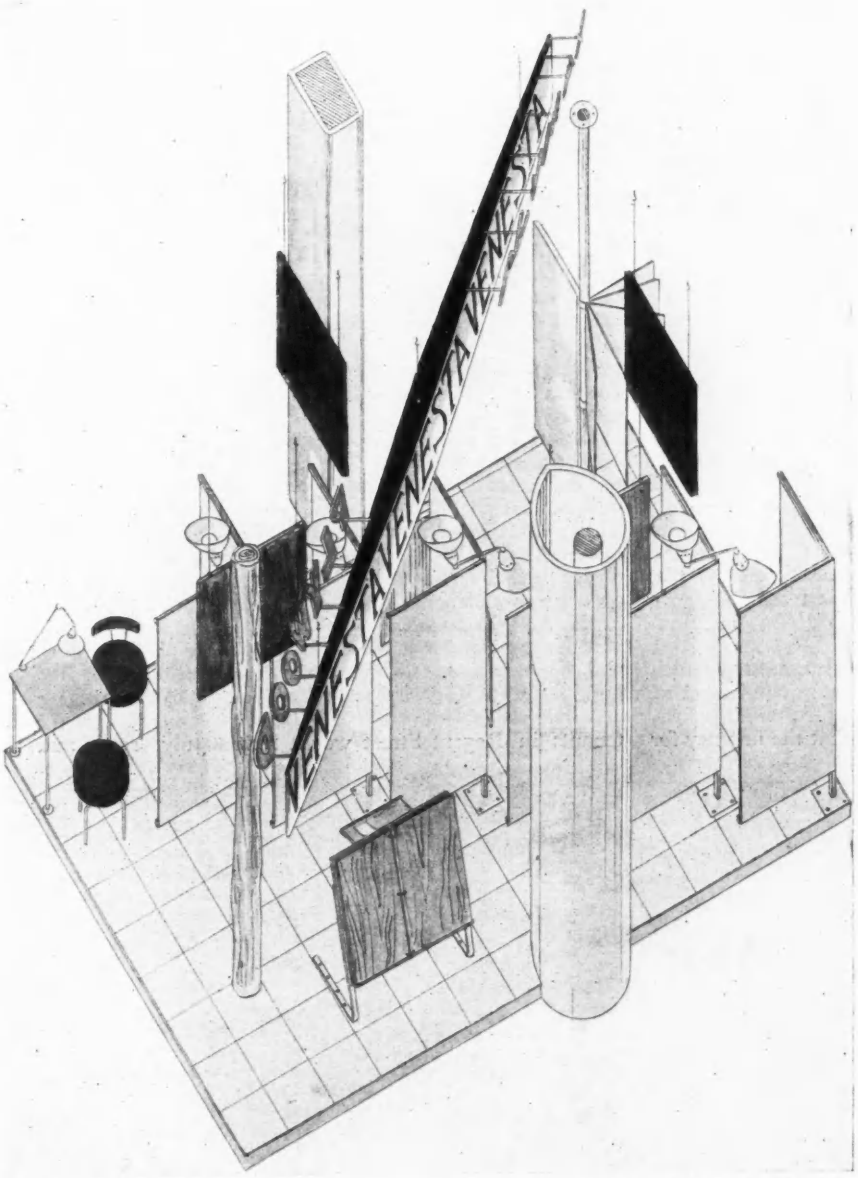
The Slum Problem. By B. S. Townroe. London: Longmans Green & Co. Price 6s. net.

London Lanes. By Alan Stapleton. London: The Bodley Head. Price 15s. net.



From North-East Kent Regional Planning Scheme.] [*By Adams, Thompson and Fry.*

Photograph of a relief map of North-East Kent.



An Isometric Sketch of the Venesta Stand. *Designed by Le Corbusier, Jeanneret and Perriand.*

THE BUILDING EXHIBITION

SUPPLEMENT THE SECOND

LONDON'S BUILDING ACTS

The Need for Revision

BY H. D. SEARLES-WOOD

THE need for revision of the London Building Acts has been a subject of public discussion for the last ten years, and today all concerned are in agreement that the Acts are out of date and a hindrance to the development of modern building.

In March, 1920, Mr. Austen Hall read a paper before the R.I.B.A. on the "Planning of some American Store Buildings." In comparing the conditions in America and England, he said: "I am not unconscious of the handicap we work under in London, the queerness of some of our building sites, the mysteries of the law of light and air, and, most of all, the utterly out-of-date Building Acts which, although ably administered, do more than anything else to destroy imaginative work."

In the course of the discussion which followed the paper, several distinguished speakers referred to the Building Acts, and it was evident that the urgency for revision and reform was already in their minds.

Mr. John Murray, Surveyor to the Crown Estates in London, referred to the limitations and restrictions on trade buildings as regards their cube and height, which he considered detrimental to the trade carried on in these buildings. Buildings in America, France and other countries had no such restrictions.

The late Mr. Edwin T. Hall endorsed very strongly Mr. Murray's remarks as to the restrictions imposed by the Building Acts. They are antiquated, and spoil any possibility of imaginative planning when a large area is being dealt with. They prevented the large open areas which are such a feature in the American stores.

Sir Henry Tanner agreed with what had been said as to the limitations buildings were subjected to in London, and referred to the difficulty Crown tenants in Regent Street would have in meeting the Crown requirements and complying with the restrictions of the Building Acts.

Mr. J. J. Joass described the effect of the conditions on a proposed Regent Street building. The Crown required the roof to be 100 ft. high; the Building Act restricted the usable height to 60 ft.; all the rest would be wasted.

The President, Sir John Simpson, in putting the vote of thanks to the lecturer, said: "The Building Act is admittedly out of date, and should long ago have been superseded."

Mr. Austen Hall, in replying, said: "With regard to the building restrictions which hamper us so severely, I think the obvious outcome of the meeting should be to form a committee to urge the reform of the London Building Act. A strong committee should be formed to begin a regular, definite and successful campaign for the modification of this ridiculous Act which dates from 1894. The regulations were out of date even then, yet we in 1920 are still governed by them. Millions of money are wasted because buildings are not built to fulfil their purpose economically and sensibly."

A committee was appointed by the Council of the Royal Institute in July, 1922, and they set to work to



The Saks Store, Fifth Avenue, New York. By Starrett and Van Kleck. America, France and other countries have no such limitations and restrictions as London on trade buildings as regards their cube and height.

review the Acts in detail. The committee prepared three reports, and these were published by the Institute in 1926.

Further suggestions from persons interested were invited and copies were forwarded to the London County Council, the principal Building Act Authority for London; they having previously invited the Royal Institute to submit their recommendations. Conferences held with other interested bodies and much correspondence, indicated that the reform of the London Building Acts was a subject of great interest to Londoners, and was supported by a wide public. The Press has given and continues to give considerable notice to this matter.

At this date the amount of reform or amendment conceded by the London County Council, in the ten years since Mr. Austen Hall read his paper, has done very little to remove the hampering restrictions then referred to. The little accomplished is set out below:

In October of this year an Act will come into force consolidating the present Building Acts. This is merely a preliminary or first step towards reform or revision.

Some minor concessions have been granted by which the Council's Regulations regarding height and cube of trade buildings have been modified, but leaving them much too restrictive for modern requirements.

Some portions of the sanitary code have been revised, permitting the use of mechanical ventilation for internal water-closets, a much overdue necessity in modern City buildings.

Recommendations recently made by the Building Acts Committee of the Council indicate that other concessions may in due course be granted.

The Acts, bylaws and regulations controlling building in London are still far behind present needs. The urgency for reform grows from day to day, the present procedure for bringing them up to date is much too slow and is causing an immense amount of irritation. It can be shown that London trade is directly hampered by restrictions unknown in any other city in the world.

The probable position of a new building in Regent Street, as forecast by Mr. Joass at the Institute in 1920, was completely fulfilled in 1927. Head lines in the evening Press so described them:

DRASTIC L.C.C. ORDER TO SWAN AND EDGAR

Forbidden to use Top Floor of new Building

£50,000 CONTROVERSY

"Passing Swan and Edgar's new building in Piccadilly Circus on the bus tonight, Londoners will look up at the top floor with unusual interest; for it is the bone of an extraordinary contention.

"Under the terms of their Crown lease the firm were compelled, at a cost of £50,000, to build this topmost story to make the building conform with the rest of Regent Street.

"Now the London County Council, which is the building authority for London, has refused the company permission to use the top floor.

"The L.C.C. has issued this drastic fiat because of what it considers are the risks of fire. The situation is fully explained below."

LETTER FROM THE FIRM

"Gravest Doubts as to the Future" if the L.C.C. Maintains its Veto

"The top floor of Swan and Edgar's new building in Piccadilly Circus is the sixth floor; and, as in the case of the other floors, runs the entire length of the island



Swan and Edgar's, Piccadilly, W. Elevations by Sir Reginald Blomfield; plans by J. J. Joass. The top floor, constructed to meet the requirements of the Commissioners of Crown Lands, cannot be used owing to restrictions imposed by the L.C.C.

site. The company has spent about £50,000 in building it.

"But because it infringes the London Building Act of 1894 the L.C.C. say that it must not be used.

"The firm has written to the L.C.C."

The floor referred to remains unoccupied at this date. That such conditions should be possible in modern London perhaps explains the public irritation which has been referred to. All concerned are now entirely agreed that the procedure for amendment and reform must be expedited.

Inquiry indicates that a new Bill will require a period not less than three years to prepare, and some further time may be occupied by Parliamentary procedure. Other proposals have been made and considered, and it would seem that there is now some considerable opinion in favour of a new building code which could be applied throughout the country. It is thought that such a code could be prepared in a few months, and that its preparation should be undertaken by an expert technical committee. It is also thought that the code might become operative as soon as sanctioned, and that the committee should continue to deliberate and periodically advise the authorities concerned as to new requirements, and so keep the code abreast of modern requirements.

Other suggestions for expediting procedure would be welcome, as meanwhile we erect buildings which do not economically fulfil their purpose, and have already expended millions on such buildings during the period of active discussion.

[*To be concluded*]

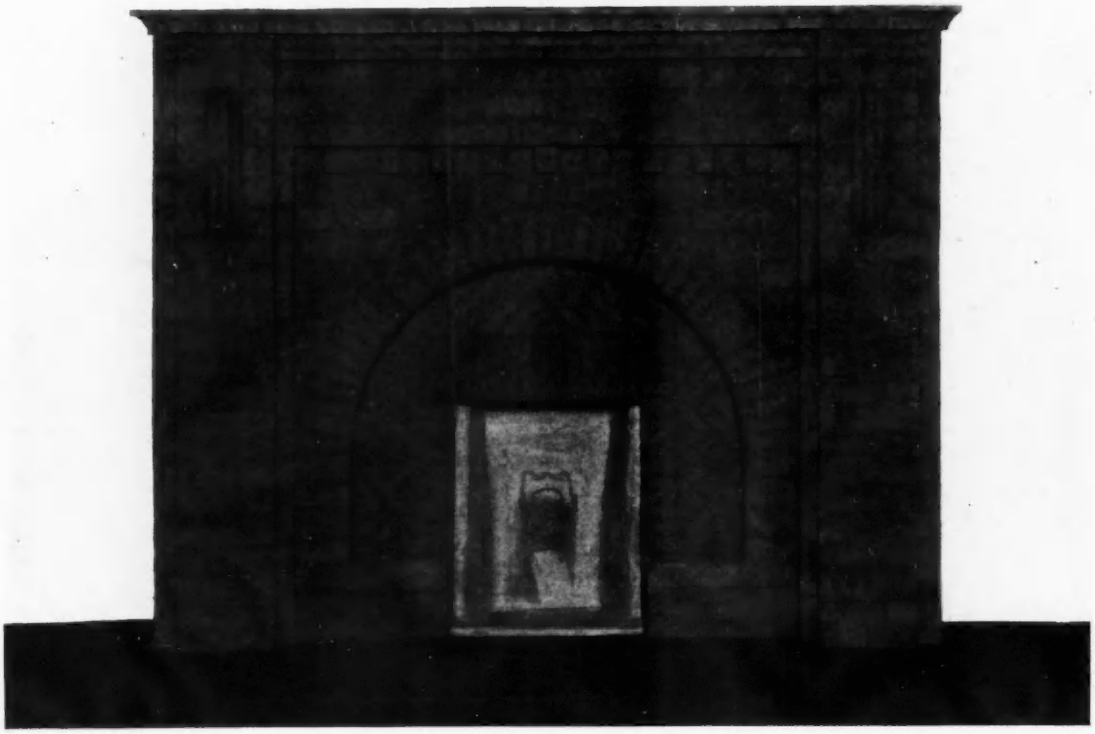
BRICK FIREPLACE COMPETITION

The Winning and Other Designs

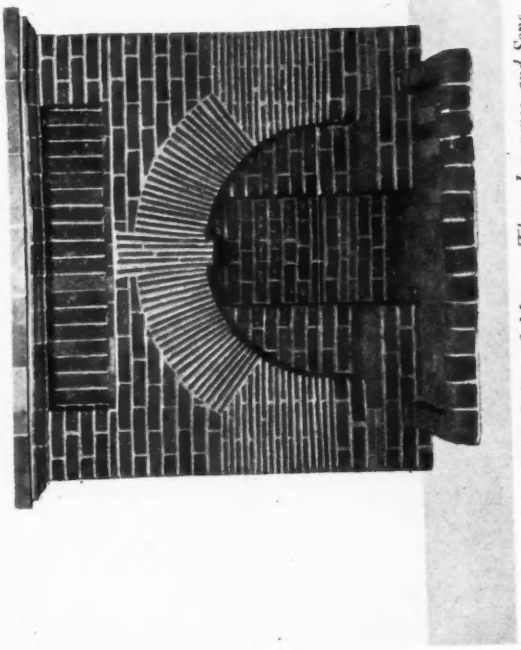
THE gold medal for the best fireplace at the Building Trades Exhibition has been awarded to Messrs. W. T. Wright & Co., Ltd., Sileby, near Loughborough. The design is by Mr. Walter Brand, Leicester. The firm used its silver-grey brick, the colour of wood ash, with a flat, wide mortar joint. The bricks are regular with good arrises, and the resulting face is fairly flat and smooth, so that the fireplace does not collect an unreasonable amount of dust on it. The angles round the fire itself are slightly rounded to prevent their being chipped, as are the angles of the two brick "hobs," always useful features in a fireplace. On the other hand, the colour, so charming in itself, is more likely to show the finger prints of the housemaid or the "batman" than any of the other exhibits.

Mr. Brand's design is satisfactory. The members and projections are kept comparatively small, as befits the subject and material, without sacrifice of breadth of colour. There is no doubt that this is a *brick fireplace*, whilst the refinement of handling makes it suitable not only for a minor baron's hall, but even for a lady's silver-papered boudoir.

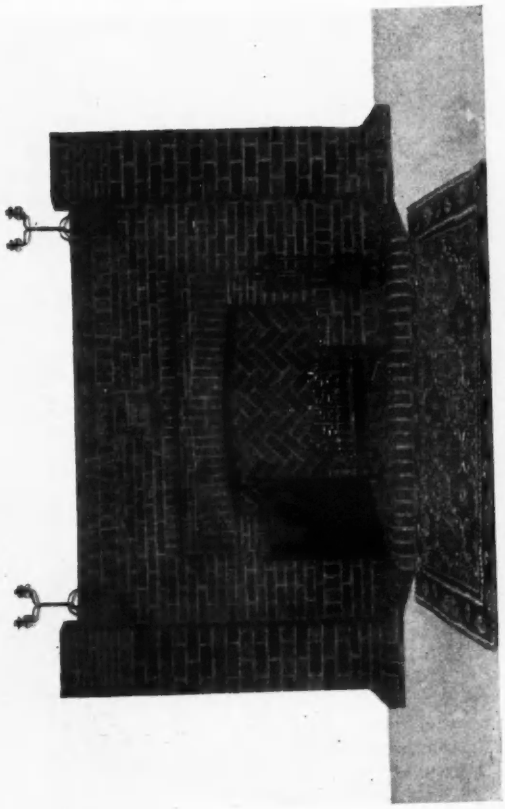
The fireplace which comes second was built by Messrs. Barker and Jones, with their bricks varying in colour from



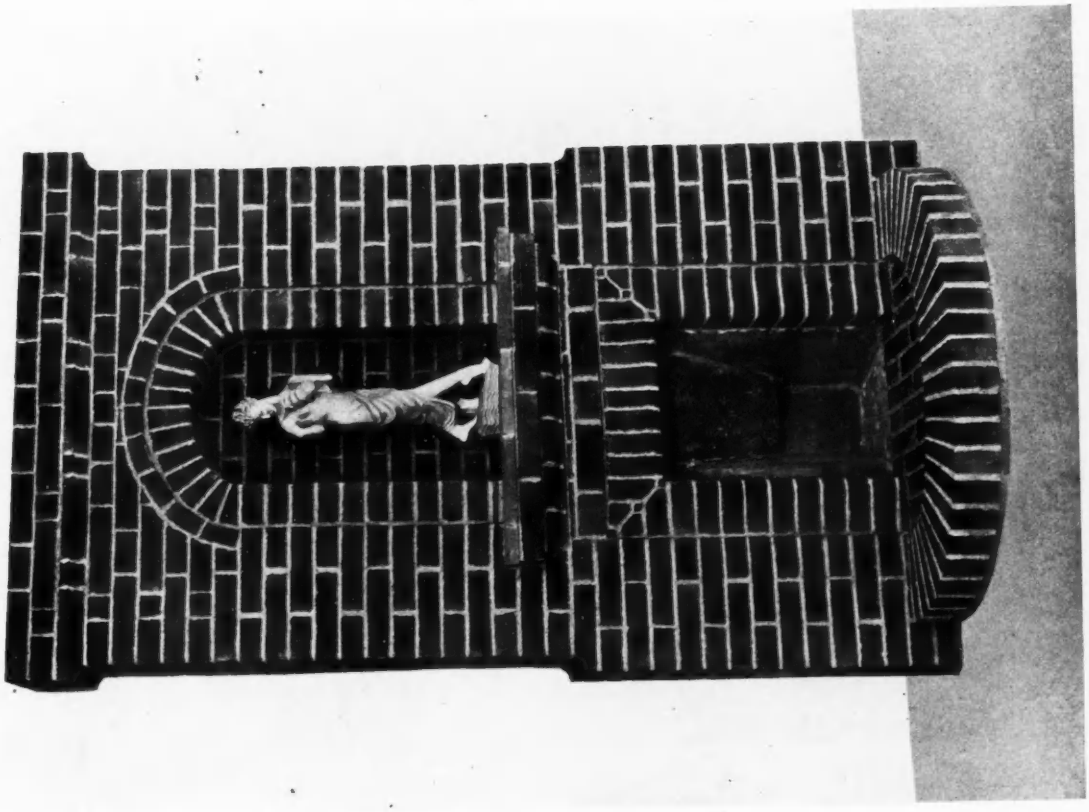
The fireplace, designed by Walter Brand, for W. T. Wright & Co., Ltd., awarded the gold medal.



The design of Messrs. Thos. Lawrence and Sons.



The design of William Davis.



The design of Barker and Jones, placed second.

brown to blue; they are excellent in shape and arris, have enough texture, and will be easily worked into a rich decorative scheme with panelling and furniture. The craftsmanship is good, but not equal to that which gained the medal. In particular, the jointing of the flat arch with the architrave has left an old problem with a botched solution. The niche above the mantelpiece, with the figure, makes a happy feature; nevertheless, this design smells too much of the pencil; its elements have not grown together, but call for those flattering lines which draughtsmen run round a sketchy composition.

The Question of Colour

Several of the other fireplaces, and notably that of Messrs. Blanchards, one of the third-prize winners, are on sound, old-fashioned lines, with too many added enrichments or breaks, or too strong a colour mix. It will need a somewhat pretentious and major baron to stand up to them. I hold that any brick with full-bodied colour must be respected primarily for its colour, which is not improved by fussy lines of shadow or chinks filled with tiles, and I was sorry no competitor had used "Georgian" quoining and filling in two colours. The English classic fireplace has been made of marble in the grand manner; why should it not be made, in a more homely style, of brick?

Messrs. Lawrence's exhibit is commendable for its propriety; the lines reach the limit of simplicity, and the design relies on its good colour.

London Brick Co. and Forders' fireplace is incorporated in an excellent stand designed by Mr. Joseph Emberton; but the bricks are dragged with a deep incised line, which makes them unsuited to surround a coal or wood fire, or indeed for interior work at all, owing to the amount of dust detained by the rough surface. The problem of the mantelshelf has been circumvented by using stucco, and I hardly think the design of the fireplace is worthy of the stand as a whole. Mr. Emberton has certainly done much better things of this sort.

"Rubbers" and "Malms"

The difficulty of all the competitors has been to obtain the "fineness" suitable for modern interiors; in the past rubbers and malms have been used for "quality" in external work, and although rubbers are now out of favour and malms difficult to get, I believe the careful introduction of either will give the look of finish which most of the exhibits lack, and may help the moderns to realize their ideals of plastic form and sveltness in the most popular building material in the country.

P. M. S.

[It is hoped to publish illustrations of some of the other prize designs in our next issue.]

Fireplace Competition Awards:

Assessors:
Sir Banister Fletcher, P.R.I.B.A.
Alan Munby, F.R.I.B.A.
Edward Maufe, M.A., F.R.I.B.A.

Gold Medal:
Messrs. W. T. Wright and Sons, Ltd., Loughborough.

2nd Prize:
Messrs. Barker and Jones, Ltd., Wallasey.

3rd Prize:
Messrs. Blanchards, Ltd., Bishop's Waltham, Hants.
Messrs. Wm. Brown and Son, Redhill, Surrey.

4th Prize:
London Brick Co. and Forders, Ltd., London.

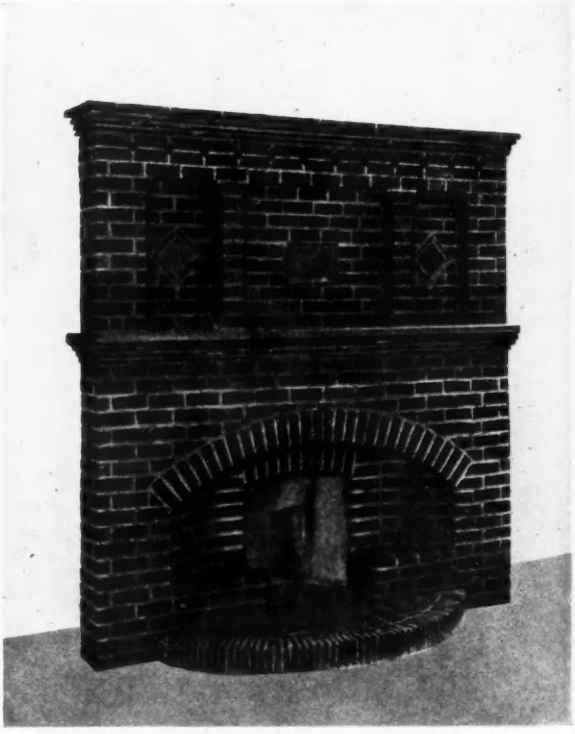
5th Prize:
Messrs. Thos. Lawrence and Sons, Bracknell.

6th Prize:
Messrs. W. T. Lamb and Sons, London.

7th Prize:
William Davis, Newcastle, Staffs.



The design of the London Brick Co. and Forders, Ltd.



The design of W. T. Lamb and Sons.

THE STANDARD DOOR

BY HAROLD TOMLINSON

THE architect is still inclined to regard the mass-produced door with suspicion. There are many reasons for this, chief of which, no doubt, is a dislike of using an article which he has not designed himself. It must be confessed that the bulk of the doors which are offered are very bad indeed from the point of view of appearance; but for this the architect is in part to blame. The manufacturer attempts to cater for the largest market, and this he finds in speculative building. But the speculative builder is influenced by prejudice, firstly, in favour of the kind of door to which he has become accustomed and, secondly, towards providing at small cost something which will appear expensive to the purchaser of the house. Both of these tend to produce meaningless complication of design.

There is another factor which is responsible for the complication of the cheapest doors: many members help to minimize the effects of shrinkage due to the use of unseasoned timber, a multiplicity of rails and panels making it possible for even the most indifferently constructed frames to remain rigid. Competition has probably made the cheapest door too cheap, for economies are strained to such an extent that it is not possible at first sight to believe that they were worth while. Styles and rails, for instance, are frequently made of timber which has been joined both with and across the grain. A well-designed and well-made glued joint is very strong indeed; but one cannot help feeling a little dubious about an article in which such rigid economy of an inexpensive material has been effected. If by this means we are able to have thoroughly seasoned timber the complication is worth while. Seasoning is the most important factor. Good machines do not turn out the faults which would be bound to occur with hasty hand work, and the question of craftsmanship does not therefore arise.

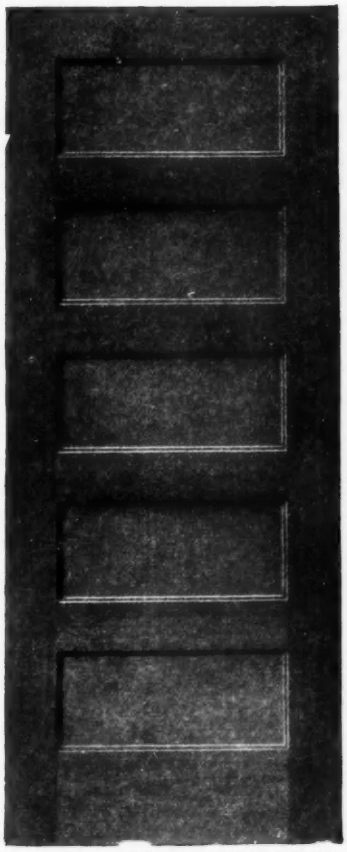
The methods of construction employed by different makers vary greatly. Some doors are morticed and tenoned, some dowelled, and some have specialized joints which have been evolved to meet the exigencies of mass production. For a long time the dowelled doors were viewed with disfavour, and, indeed, the wedging of a mortice and tenoned joint offers a greater proof against shrinkage, as the wedges exercise a pulling action which is absent in the dowelled joint. With thoroughly dry seasoned timber and the impeccably close machine-made joints, however, the dowelled structure is strong enough for its purpose. The dowelled door is obviously much cheaper, as the length of a pair of tenons is saved on each rail.

In "Laminex" and "Metco" doors the dowels are made with two narrow slots, and, being a tight driving fit, are slightly compressed in assembly so that they tend to expand against the sides of the holes which receive them. "Laminex" doors also have styles and rails of unusual construction: these members consist of at least three layers, the inner one generally being grooved to receive the panels. The layers are locked tightly together by dovetails which run along their whole length, and the almost invisible joints are concealed with applied veneers.

Veneered standardized doors need to be chosen with care. Rapid clearing of shops is necessary in mass production, and one way to effect this is by leaving glued work too short a time in the clamps. Most of the better quality veneered doors are reliable; but there are some brands which are not above criticism in this respect. The safest way of finding out how a door will work is not to examine the showroom section (always a marvel of perfection), but to insist on seeing doors which have been hung for several years on an ordinary job.

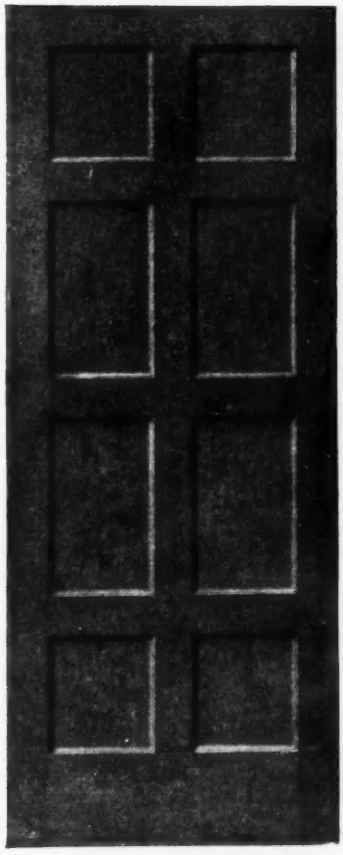
Recognition of the virtues of plywood has brought the flush door into its own. There is a great deal to be said for a door which has no projections. In hospitals such doors are a necessity, and even in domestic work the valuable effects which can be obtained from broad expanses of richly grained timber is being appreciated more and more. Another advantage of this type is that it is very readily rendered sound-proof, and most makers will supply flush doors which contain sound-proofing material. Plywood, by virtue of its construction, offers new figurings which were not formerly obtainable; but it is not a material to be chosen lightly. The poorer qualities are subject to vagaries which produce distressing effects in both stained and painted work.

As is generally known, there are two



[*Merchant Trading Co., Ltd.*

A five-panel "Metco" door.



[*Merchant Trading Co., Ltd.*

An eight-panel "Metco" door.

kinds of plywood, these being made from either "knife-cut" or "saw-cut" veneers. In knife-cutting the veneer is obtained by imposing a long knife against the timber, which is rotated in a lathe. Thus the veneer is unrolled like linoleum, and the knife in travel cuts more or less regularly through the annual rings at each revolution and, incidentally, produces those mysterious "repeats" which are often attractive and sometimes equally unpleasant.

Knife-cutting destroys the original structure which existed in the tree: that which was circular has been induced to become straight. The veneers are glued together at right angles to give strength in both directions, and to counteract the tendency to return to their original form; but unless the gluing is carried out scrupulously, surface undulations, which are particularly distressing in painted work, are bound to occur. The best brands are absolutely reliable and carry a guarantee of replacement of defective goods.

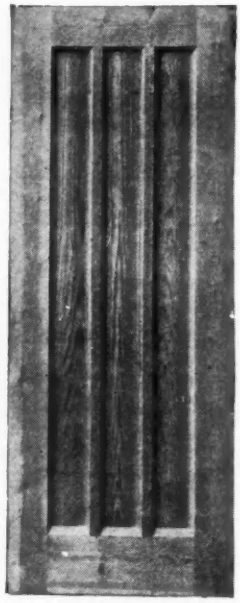
With saw-cut veneers the timber is subjected only to those strains which might be expected from the drying out and seasoning of a cellular structure. The figure of the wood remains normal, and depends on the method of sawing employed. Saw-cut veneers are much more expensive. The knife wastes nothing from the cylinder, but the saw produces laminæ of varying size, which have to be butted if large areas are to be covered. It is therefore evident that doors covered with sawn veneers cannot be produced cheaply. A good example is the "Raleigh" door, made by Messrs. Shapland and Petter. This door consists of a frame of three 7-in. by 1-in. rails, with closely spaced intermediate rails of smaller size. The styles are finished 5 in. by 1 in., which allows the lock to be fitted at any height from the ground. The plywood is fixed to the core and housed in grooves in the slips which embrace the core edges. This standard door is supplied in oak, walnut, mahogany, teak, silky oak, and pine, and finished in wax, french polish or cellulose, the last to any colour.

The supplying of doors with their protective covering already applied will often effect a great saving of time, but not every maker is reliable in delivery, and it is well to demand a guaranteed time of delivery before specifying any particular door. Experience has taught that even some of the largest dealers are unable to supply within a reasonable time the goods which they list as standard, and withdrawal of catalogued goods, too, may cause trouble to the unwary.

The writer had hoped for much from a door which made its appearance several years ago. This consisted of boards glued together, through-bored, and reinforced with steel tubes expanded at each end. The only one which he has used (in his own house) has shrunk $\frac{3}{8}$ in. laterally—this, no doubt, due to lack of seasoning. A door more completely articulated, even if badly seasoned, would have shrunk, but its effects would not have been so noticeable.

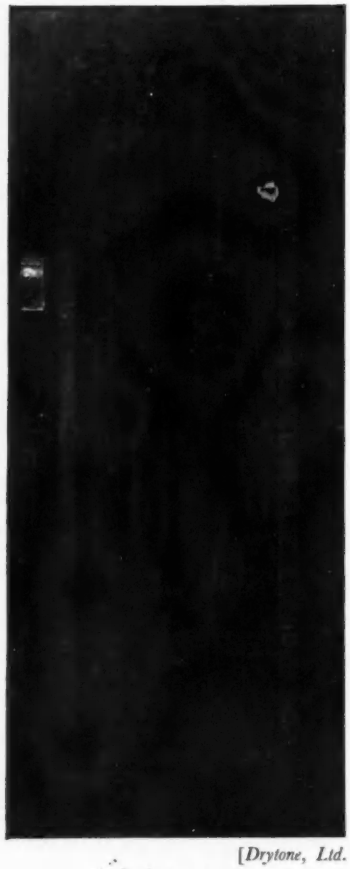
The cheap door with many panels can be used quite successfully as a flush door by covering up both sides with plywood. This is easily done by means of the "Seecrid" nail now marketed by Messrs. Nettlefold. This nail has two ends, each of which is divided, and so splayed that it spreads on being driven. This ensures intimate contact between plywood and frame, and if the ply covering is slightly chamfered at its edges to avoid fraying, an effective and reliable door may be produced at small cost. Clamping after gluing is unnecessary owing to the binding action of the nails. The chamfered edge is important with plywood unless the veneers are protected from rubbing contact.

The "Knowledge" flush door, which is entirely ply-covered, has its lower edge chamfered to prevent damage by floor coverings, while the solid styles have an ingenious dovetailed contact which not only makes the plywood



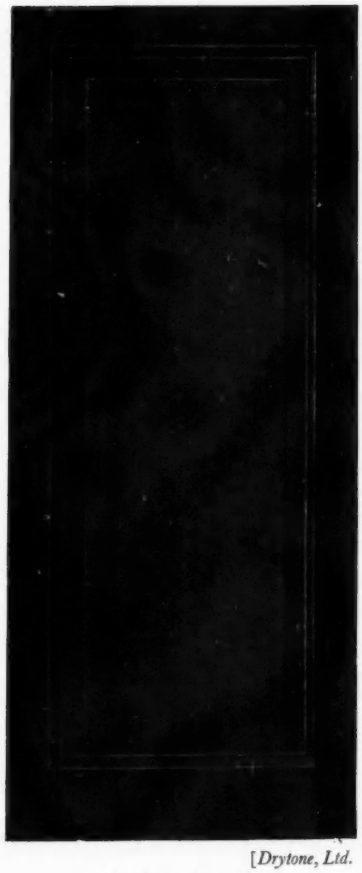
[*Boulton and Paul.*

A three-panel door.



[*Drytone, Ltd.*

A flush-panel door.



[*Drytone, Ltd.*

A one-panel door.

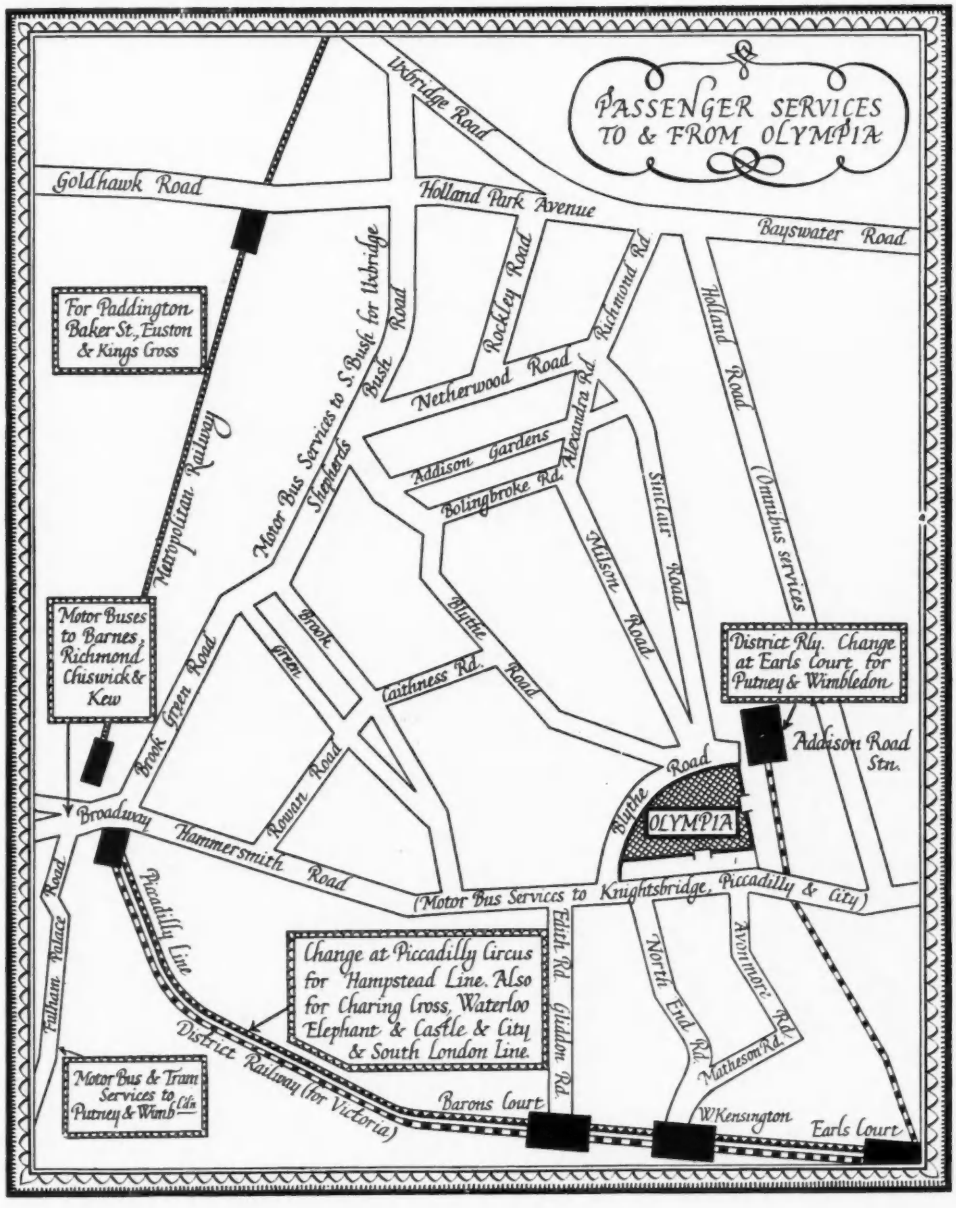
secure but also permits of a perfectly uniform surface. The inner framing of this door is well designed, and it is supplied in many woods, the cheapest being Oregon pine, though a door with knife-cut mahogany veneers and solid styles is reasonably inexpensive.

The construction of the "Drytone Metadoor" is interesting. This is a ledged door in which the ledges are of metal, and visible. The ledges are attached to the boards with screws, and swelling or shrinkage may readily take place. Expansion or contraction effects are reduced to a minimum, the width varying only by the amount of movement in the two outermost boards. The plain "Metadoors" are of attractive appearance, the ledges being obtainable in a variety of metals, which makes them at home in modern interiors where metal is often employed decoratively. The more complicated doors are not so satisfactory; but these will no doubt be improved in course of time. The general level of design in the "Drytone" products is very high, and several must receive full marks. Some will find attractive the "Drytone" finish, in which the wood is coloured by chemical treatment and not by stain, the final protection being wax polish for internal work and cellulose for outside doors. "Drytone" doors are also supplied in the white if required for painting or other normal finish.

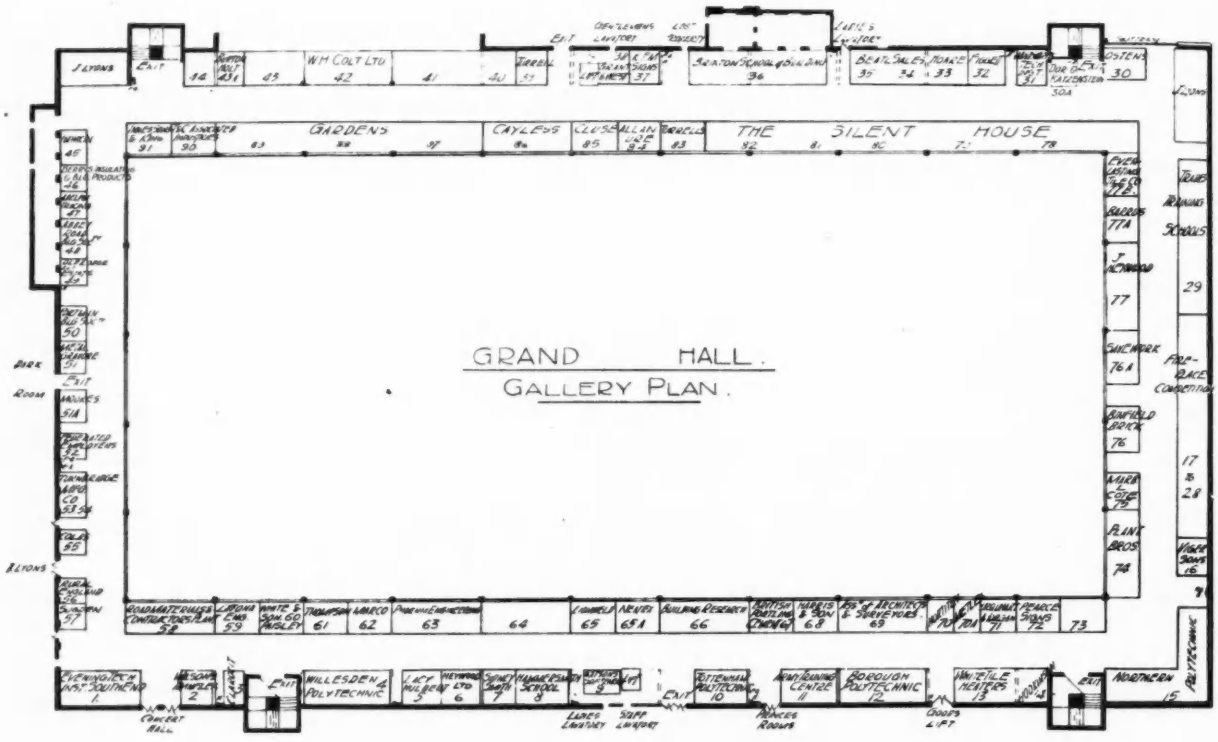
Apart from the doors already mentioned, there are many others on the market, some good, some not so good; but there is no longer any excuse for condemning the standard door *en bloc*. It is to be hoped that architects will use them more frequently in the future, and at the same time that they will continue to pester the manufacturers to produce reasonable designs.

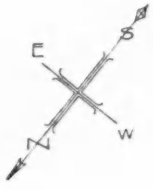
It is not suggested that the standard range should be used in preference to designing. The evil effects of standard windows when unskilfully used has already produced many unpleasant houses, but in door catalogues the architect will often find just the article he wants, and so save his client much money.

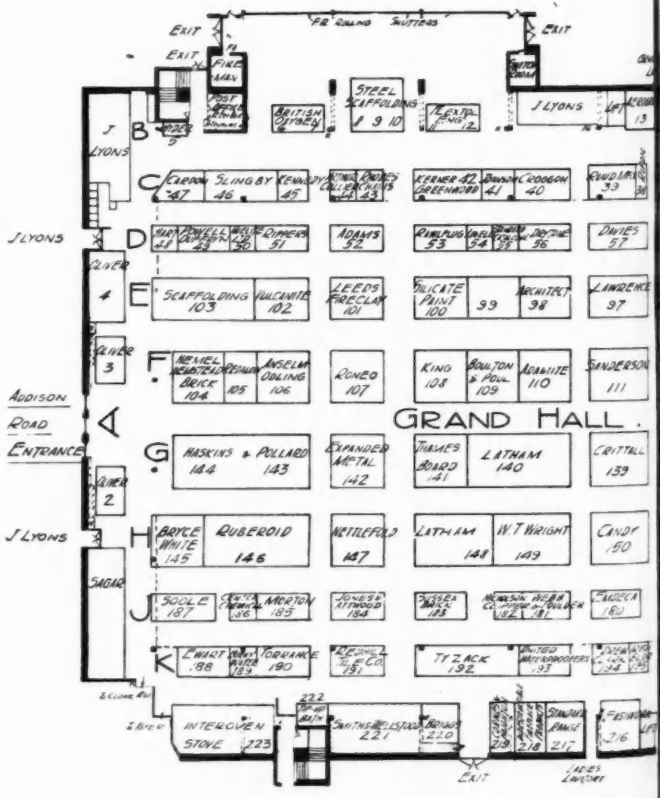
He can protect his interests, as suggested above, by examining doors which have seen long service, and by his influence he has it in his power to induce the trade to supply a cheap door which is satisfactory from every point of view.



How to get to Olympia



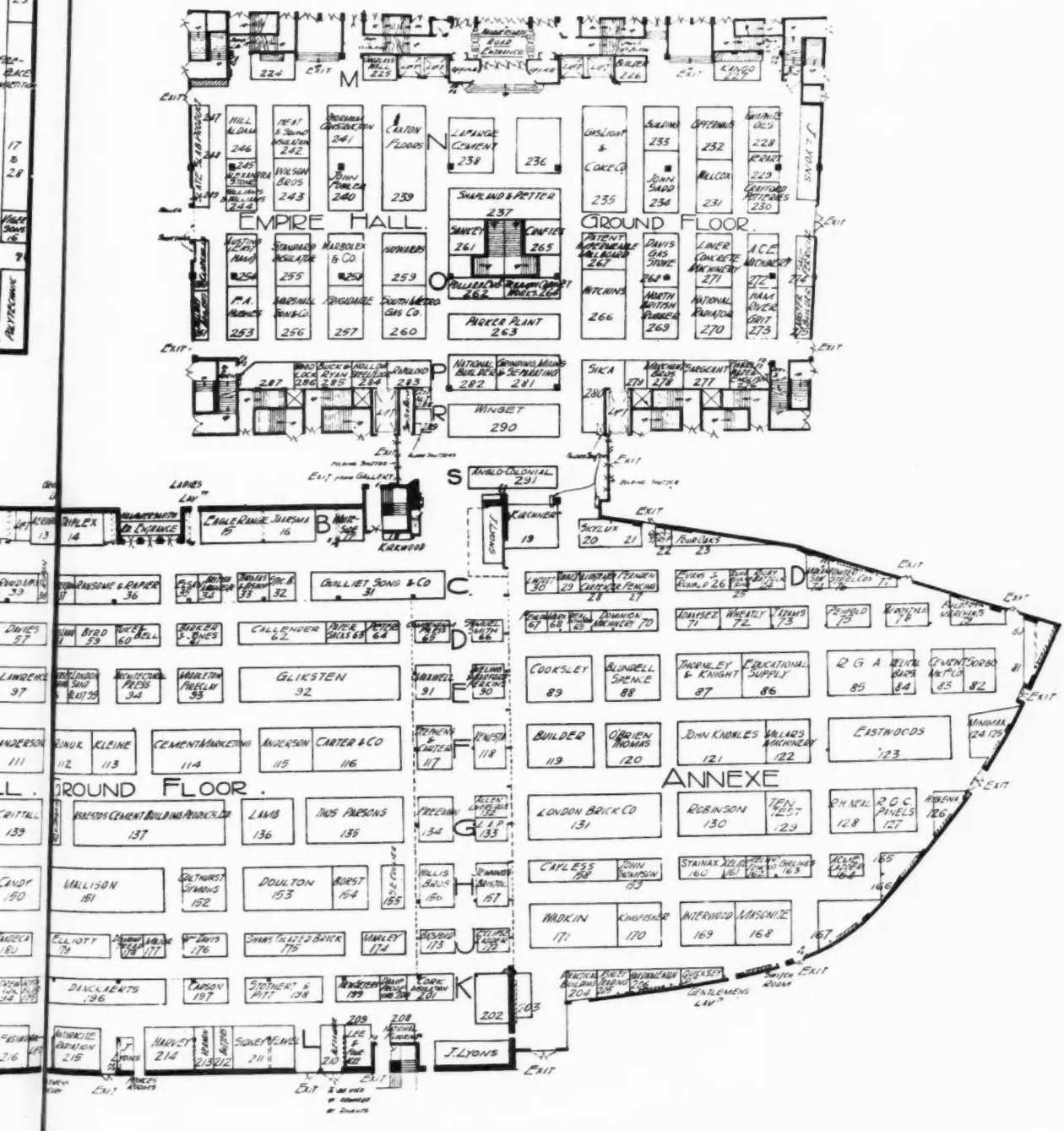




For list of Exhibitors see page 474.

BUILDING TRADES EXHIBITION

LAY-OUT OF THE STANDS



ALPHABETICAL LIST OF EXHIBITORS

	Row	No.
ABBEY ROAD BUILDING SOC.	Gal.	48
A.C.E. Machinery, Ltd. ..	O	272
Acme Patent Ladder Co. ..	H	164
Adamite Co., Ltd.	F	110
Adams and Son, Ltd., James	D	73
Adams, Robert	D	52
Adamsez, Ltd.	D	71
Adelphi Tracing and Planning Co.	Gal.	47
Aerograph Co., Ltd. ..	B	13
Aerostyle, Ltd.	D	78
Alexander & Co., Ltd., H. ..	L	210
Alexandra Stone Co., Ltd. ..	N	245
Allen-Liversidge, Ltd. ..	G	132
Anderson and Son, Ltd., D.	F	115
Anglo-Colonial Trading Cpn.	S	291
Anselm Odling & Sons Ltd.	F	106
Anthracite Radiation, Ltd.	L	215
"Architect and Building News"	E	98
"Architects' Journal" ..	E	94
Architectural Press, Ltd. ..	E	94
"Architecture"	F	119
Army Voc. Trng. Centre ..	Gal.	11
Asbestos Cement Building Products, Ltd.	G	137
Ashley Trading Co., Ltd. ..	K	205
Austins (East Ham), Ltd. ..	O	254
Aveling and Porter, Ltd. ..	E	90
BARKER AND JONES, LTD.	D	61
Barrus, E. P., Ltd.	Gal.	77a
Batsford, Ltd., B. T. ..	J	173
Beatl Sales, Ltd.	Gal.	34-35
Berry's Insulating and Building Products, Ltd. ..	Gal.	46
Binfield Brick and Tile Wks.	Gal.	76
Blanchards (Bishops Waltham), Ltd.	Gal.	18
Blundell, Spence & Co., Ltd.	E	88
Borough Polytechnic ..	Gal.	12
Boulton and Paul, Ltd. ..	F	109
Briggs and Sons, Ltd., Wm.	L	220
British Magnesite Florg. Co.	C	34
British Oxygen Co., Ltd. ..	B	6–7
British Portland Cement Association, Ltd. ..	Gal.	67
Brixton School of Building	Gal.	36
Brown, Wm., and Son ..	Gal.	20
Bryce, White & Co., Ltd. ..	H	145
Buck and Ryan	P	285
"Builder, Ltd."	F M	119 226
"Builders' Merchants' Journal and Builders' Ironmonger"	E	79
"Building"	N	223
Building Research Station ..	Gal.	66
Building Trades Pr. Lab. ..	N	228
Burton Holt (Chelsea), Ltd.	Gal.	43
Butters Bros. & Co. ..	L	212
Byrd & Co., A. A.	D	59
CALLENDER & CO., LTD., G. M.	D	62
Candy & Co., Ltd.	H	150
Cardon & Co., Ltd. ..	C	47
Carson and Sons, Walter ..	K	197
Carter & Co., Ltd.	F	116
Caxton Floors, Ltd. ..	N	239
Cayless Bros. (Battersea) ..	H Gal.	158 86
Cement Marketing Co., Ltd.	F	114
Central Chemicals, Ltd. ..	J	186
Chadwick and Shapcott, Ltd.	G	138
Chaplain & Co., Ltd., A. E.	Gal.	9a
Clarkhills, Ltd.	O	250
Clarocit Co., Ltd.	Gal.	3
Cluse, Ltd.	Gal.	85
Colas Products, Ltd. ..	Gal.	55
Collier, Arthur	C	44
Collier, S. and E., Ltd. ..	H	155
Colt, Ltd., W. H.	Gal.	42
Colthurst Symons & Co., Ltd.	H	152
Compendium Publishing Co.	D	65
Contractors Plant, Ltd. ..	Gal.	58
Cooksley, A.	E	89
Cork Insulation Co., Ltd. ..	K	201
Cornes and Haighton, Ltd.	L	219
Coronet Brick Co., Ltd. ..	F	104
Council for Preservation of Rural England ..	Gal.	56
Cradnitt, Ltd.	Gal.	1a
Craftex, Ltd.	O	265
Crayford Potteries Co. ..	N	230
Crittall Mfg. Co., Ltd. ..	G	139
Croggon & Co., Ltd. ..	C	40
DAMP-PROOFING, LTD. ..	K	200
Danckaert's Woodworking Machinery, Ltd.	K	196
Daneshill Brick and Tile Works, Ltd.	Gal.	19
Davies Bros. (Timber and Joinery) (1928), Ltd. ..	D	57
Davis Gas Stove Co., Ltd. ..	O	268
Davis, Wm.	J	176
Defiant Enamelled Tile Co.,	M	224
Diamond Tread Co., Ltd. ..	J	178
Dominion Machy. Co., Ltd.	D	70
Doulton & Co., Ltd. ..	H	153
Drew, Clark & Co.	K	194
Druki Asbestos Flooring and Products Co.	Gal.	17
Drytone, Ltd.	D	56
Dry Rot and Fire Prevention Co., Ltd.	Gal.	75
Duport Foundries, Ltd. ..	Gal.	64
EAGLE RANGE & GRATE CO. ..	B	15
Easiwork, Ltd.	L	216
Eastwoods, Ltd.	F	123
Ebner, Jos. F.	N	237
Eclipse Rail-Track Ladder Co. ..	J	172
Educ. Supply Assoc., Ltd. ..	E	86
Elliott and Sons (Reading), Ltd., Samuel	J	179
Elsan Manufacturing Co. ..	C	35
Emdeca Metal Dec. Co., Ltd.	J	180
English Bros., Ltd. ..	P	276
Evans and Ronald, Ltd. ..	C	26
Evening Technical Institute	Gal.	1
Everlasting Tile, Concrete Products, Ltd.	Gal.	77b
Ewart and Son, Ltd. ..	K	188
Expanded Metal Co., Ltd. ..	G	142
FASTNUT	R	288
Federated Employers' Insurance Association, Ltd. ..	Gal.	52
Federated Employers' Press	P	282
Fenlon and Son	D	67
Fernden Fencing and Construction Co., Ltd. ..	C	27
Field and Palmer, Ltd. ..	Gal.	44
Figgett, F. C.	Gal.	32
Flavel & Co., Ltd., Sidney ..	L	211
Flexo Plywood Industries Ltd.	Gal.	43a
Flextol Engineering Co., Ltd.	B	11-12
Four Oaks Spraying Mch. Co.	B	23
Fowler & Co. (Leeds), Ltd.	N	240
Freeman, Sons & Co., Ltd.	G	134
Frigidaire, Ltd.	O	257
GABRIEL, WADE AND ENGLISH, LTD.	P	276
Gas Light and Coke Co. ..	N	235
Girlings' Ferro Concrete Co.	H	163
Gliksten and Son, Ltd., J. ..	E	92
Gliksten Doors, Ltd. ..	E	92
Goodlass Wall & Co., Ltd.	M	225
Grant and West, Ltd. ..	Gal.	38
Graphite Oils Co., Ltd. ..	N	228
Grinding, Mixing and Separating Co., Ltd. ..	P	281
Guilliet, Sons & Co. ..	C	31
HALLIDAY BOILERS, LTD. ..	O	251–2
Hammersmith School Bldg. and Arts and Crafts ..	Gal.	8
Ham River Grit Co., Ltd. ..	O	273
"Hardwareman and Builders' Merchant" ..	K	206
Harris & Sons	Gal.	68
Hart, H.	D	48
Harvey & Co. (London), Ltd., G. A.	L	214
Hawkins & Co., Ltd., L. G.	Gal	45
Hayward-Latona Engineering Co., Ltd., F. H. ..	Gal.	59
Haywards, Ltd.	O	259
Heat and Sound Insulation, Ltd.	N	242
Helical Bar and Eng. Co., Ltd.	E	84
Hemel Hempstead Patent Brick Co., Ltd.	F	104
Heywood Bros.	Gal.	6
Heywood, Ltd., John ..	Gal.	77
Higgs, Son & Co., Ltd. ..	Gal.	77b
Hill, Aldam & Co., Ltd., E.	N	246
Hoare, Ernest	Gal.	33
Hodkinson & Co., Ltd., W. S.	Gal.	14
Hollis Bros. & Co., Ltd. ..	H	156
Hollow Steel Floor Co., Ltd.	P	284
Hontsch & Co.	Gal.	30a
Hortitex Glass, Ltd.	Gal.	70
Hughes & Co., Ltd., F. A. ..	O	253
"Hurry" Water Heater Co.	K	189
Hyder & Sons	B	5
Hygena Cabinets Co., Ltd.	G	126
IDEAL WINDOW CO.	D	69
"Illustrated Carpenter and Builder"	C	28
Incorporated Association of Architects and Surveyors	Gal.	69
Indestructible Fireplace Products	L	218
Innes, Sons and King, Ltd.	Gal.	91
Interoven Stove Co., Ltd. ..	L	223
Interwood, Ltd.	J	169
"Irish Builder and Engineer"	K	195
Italian Marble and Tiles Importers, Ltd.	Gal.	39
JAARSMA, E. M.	B	16
Jarvis & Son, W. R. ..	Gal.	87
Jennings (Bristol), Ltd. ..	H	157
Johnson Bros., G.	C	41
Johnson, Robt. C.	Gal.	65a
Jones and Attwood, Ltd. ..	J	184
K.F.M. ENGINEERING CO., LTD.	Gal.	37
Kango Co., Ltd.	M	227
Kennedy, Wm.	C	45
Kerner-Greenwood & Co., Ltd.	C	42
Kestner Evaporator and Engineering Co., Ltd. ..	Gal.	73
King & Co., Ltd., J. A. ..	F	108
King, Ltd., Geo. W. ..	Gal.	91
Kingfisher, Ltd.	J	170
Kirchner & Co. (London), Ltd.	B	19
Kirkwood, Craig & Co., Ltd.	B	18
Kleine Patent Fire-Resisting Flooring Syndicate, Ltd.	F	113
Knowles & Co. (London), Ltd., John	F	121
LACY-HULBERT & CO., LTD.	Gal.	5
Lafarge Aluminous Cement Co., Ltd.	N	238
Lamb and Sons, W. T. ..	G	136
Laminated Wood Products, Ltd.	O	266
Lang, Jules (Nitaline), Ltd.	D	58
LAP (C.I. Process), Ltd. ..	G	133
Latham, Ltd., James ..	G 140a H	140, 148
Lawrence & Sons, Thos. ..	E	97
Lee and Fouracre	L	209
Leeds Fireclay Co., Ltd. ..	E	101
Liner Concrete Mach. Co.	O	271
Lintott, H. and E.	C	30
"Lionweld" Steel Flooring and Stairway Co. ..	Gal.	65
Liverpool Borax Co., Ltd.	E	91
London Brick Co. and Forders, Ltd.	G	131
London Sand Blast Decorative Glass Works, Ltd. ..	E	95
Lovell & Son, Y. J. ..	D	54
MAJOR, LTD., H. J. & C. ..	J	177
Mallinson and Sons, Ltd.	H	151
Marb-L-cote Distributing Corporation	Gal.	75
Marbolex	O	258
Marchant Bros., Ltd. ..	P	278
Marco Refrigerators (1929), Ltd.	Gal.	62
Marley Tile Co., Ltd. ..	J	174
Marshall, Sons & Co., Ltd. ..	O	256
Marx, E.	D	68
Masonite, Ltd.	J	168
"Master Builder" ..	O	275
Maxwell, Andrew	E	91
Metal Gravure Co., Ltd. ..	Gal.	51
Metlex Industries, Ltd. ..	Gal.	70a
Middleton Fireclay Co. ..	E	93
Midland Saw and Tool Co.	D	74
Millars' Machinery Co., Ltd.	F	122
Milton Hall (Southend) Brick Co., Ltd.	N	234a
Minimax, Ltd.	F	124-5
Moore's Modern Methods, Ltd.	Gal.	51a
Morton, Francis, Jun. & Co.	J	185
Municipal School of Arts and Crafts	Gal.	1
"NATIONAL BUILDER" ..	P	282
National Flooring Co., Ltd.	L	208
National Plywood Corporation, Ltd.	E	92
National Radiator Co., Ltd.	O	270
Nautilus Fire Co., Ltd. ..	O	268
Neal & Co., Ltd., R. H. ..	G	128
Neatex Curtain Rail Co. ..	Gal.	65a
Nettlefold and Sons, Ltd. ..	H	147
New Geysers, Ltd.	K	199
Nicholson and Clipper Co., Ltd., W. T.	J	182
"Noelite," Ltd.	D	50
North British Rubber Co.	O	269
Northern Polytechnic ..	Gal.	15
O'BRIEN, THOMAS & CO., LTD.	F	120
Odling and Sons, Ltd., Anselm	F	106
Offerhaus & Co.	N	232
Old Lodge Estate (Purley)	Gal.	49
Oliver and Sons, Ltd., Wm.	A	2-4
Ostens (Byfleet), Ltd. ..	Gal.	30
P. AND S. ROAD MATERIALS TRANSPORT, LTD. ..	Gal.	58a
Paper Sacks, Ltd.	D	63
Parker, Ltd., Frederick ..	O	263
Parsons and Sons, Thos. ..	G	135
Patent Impermeable Millboard Co., Ltd.	O	267
Patent Tip-up Bath Co. ..	L	222
Pearce Sign Works ..	Gal.	72
Penfold Fencing, Ltd. ..	D	75
Peters, Ltd., C. A.	D	64
Phœnix Eng. Co., Ltd. ..	Gal.	63
Phormium Cavity Blocks, Ltd.	N	241
Plant Bros., Ltd.	Gal.	74
Pollard & Co., Ltd., E., and Haskins	G	143, 144
Pollard Eng. Co., Ltd. ..	O	262
Portman Building Society	Gal.	50
Potterton (Heating Engineers), Ltd., Thomas ..	C	37
Powell Duffryn Steam Coal Co., Ltd.	D	49
"Practical Building" ..	K	204
Preservation of Rural England, Council of	Gal.	56
Prodorite, Ltd.	Gal.	40
QUICKSEY CABINET MANUFACTURING CO.	K	207
Quickstryp Chem. Co., Ltd.	B	22
R. G. C. PANELS, LTD. ..	G	127
Ransomes and Rapier, Ltd.	C	36
Rapoloid	P	283
Rawlplug Co., Ltd. ..	D	53
Redalon, Ltd.	F	105
Redhill Tile Co., Ltd. ..	K	191
Reliant Fencing Co., Ltd. ..	H	162
Rhodes Chains, Ltd. ..	C	43
Rigby Battcock, Ltd. ..	C	24
Ripon Steel Co., Ltd. ..	C	38
Rippers, Ltd.	D	51
Robinson and Son, Ltd., Thomas	G	130
Roneo, Ltd.	F	107
Ronuk, Ltd.	F	112
Rubber Growers' Association Inc.	E	85
Ruberoid Co., Ltd.	H	146
Ruud Mfg. Co., Ltd. ..	C	39
SADD AND SONS, LTD., JOHN	N	234
Sagar & Co., Ltd., J. ..	A	1
St. Margaret's Technical Press, Ltd.	N	233
Sal-Ferricite and Trading Co., Ltd.	O	274
Sanderson and Sons, Ltd., A.	F	111
Sankey and Son, Ltd., J. H.	O	261
Sargeant, E. F.	P	277
Savework, Ltd.	Gal.	76a
Scaffolding (Great Britain), Ltd.	E	103
Scientific and Industrial Research	Gal.	66
Shapland and Petter, Ltd. ..	N	237
Shaws Glazed Brick Co., Ltd.	J	175
Sika, Ltd.	P	280
"Silent House"	Gal.	78-82
Silicate Paint Co., Ltd. ..	E	100
Skylux, Ltd.	B	20, 21
Slate Slab Products, Ltd. ..	N	247-9
Slingsby, H. C.	C	46
Smeed, Dean & Co., Ltd. ..	Gal.	76
Smith and Sons, Ltd., Samuel	D	66
Smith and Wellstood, Ltd.	L	221
Smith, Sidney	Gal.	7
Somerset Trading Co., Ltd.	E	96
Soole and Son, Ltd. ..	J	187
Sorbo Rubber Sponge Products, Ltd.	E	82
Southend-on-Sea Evening Technical Institute ..	Gal.	1
South Metropolitan Gas Co.	O	260
Stainax Co.	H	160
Staines Kitchen Equipment Co., Ltd.	K	202
Standard Catalogue Co., Ltd.	D	55
Standard Insulator Co., Ltd.	O	255
Standard Range and Foundry Co., Ltd. ..	L	217
Steel Scaffolding Co., Ltd. ..	B	8-10
Stephens and Carter, Ltd. ..	F	117
"Stic-B," Ltd.	C	32
Stothert and Pitt, Ltd. ..	K	198
Sugden & Co., Ltd., W. H. ..	Gal.	57
Sussex Brick Co., Ltd. ..	J	183
T. AND C. ASSOCIATED INDUSTRIES, LTD.	Gal.	90
Tella Co., Ltd.	K	203
Tentest Fibre Board (1929) Co., Ltd.	G	129
Thames Board Mills, Ltd. ..	G	141
Thomas and Bishop, Ltd. ..	C	33
Thompson, A.	Gal.	61
Thompson Beacon Windows, Ltd., John	H	159
Thornley and Knight, Ltd.	E	87
Tibbett, Wm. J.	C	29
Torrance and Sons, Ltd. ..	K	190
Tottenham Polytechnic ..	Gal.	10
Trades Training Schools of the Worshipful Company Carpenters	Gal.	29
Triplex Foundry, Ltd. ..	B	14
Triumph Cabinet Wks., Ltd.	O	264
Tuke and Bell, Ltd.	D	60
Turnbridge Manufacturing and Supply Co., Ltd. ..	Gal.	53, 54
Turrell's Portable Building Works	Gal.	83
Tyzack and Son, Ltd., S. ..	K	192
UNITED SPONGE CO. ..	H	165
United Steel Companies, Ltd.	D	76, 77
United Waterproofers, Ltd.	K	193
Ure, Allan & Co.	Gal.	84
Urquhart Morgan, Ltd., G.	Gal.	71
VENESTA, LTD.	F	118
Verart, Ltd.	N	229
Vernon, Ltd., R.	L	213
Vigers, Sons & Co., Ltd. ..	Gal.	16
Vulcanite, Ltd.	E	102
WADKIN & CO.	J	171
Wandsworth Technical Inst.	Gal.	31
Watco, Ltd.	K	193
Watsons Water Softeners ..	Gal.	9
Webb and Foulger (Brush Manufacturers), Ltd. ..	J	181
Westmorland Green Slate Quarries, Ltd.	E	83
Wheatly & Co.	D	72
White, Sons, Ltd., Thos. ..	Gal.	60
White Tile Heaters, Ltd. ..	Gal.	13
Whiteside, Ltd., W. E. ..	B	17
Willcox & Co., Ltd., W. H. ..	N	231
Willesden Polytechnic Day School of Building ..	Gal.	4
Williams and Williams, Ltd.	N	244
Wilson Bros. (Leeds), Ltd. ..	N	243
Wilsons Twinflex Tile Machine Co.	Gal.	2
Winget, Ltd.	R	290
Woodlock Agents (England), Ltd.	P	286
Wovenboard Wood Panelling Co.	H	154
Wright & Co., Ltd., W. T. ..	H	149
XELITE PLASTER CO., LTD.	H	161
YOUNG, OSMOND AND YOUNG, LTD.	C	25

NOTABLE EXHIBITS: ii

THE ARCHITECTURAL PRESS cordially invite all architects and readers visiting London for the exhibition to pay a visit to their Stand No. 94, Row E, where a complete range of all their publications will be found. The stand, which has been designed by Professor A. E. Richardson, F.R.I.B.A., is specially arranged to enable visitors to glance through the various publications at their leisure and in comfort, without being disturbed by people passing from one stand to another. In addition to the well-known periodicals, THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, and SPECIFICATION, there are on view all the new books such as *Modern Architectural Sculpture*, by William Aumonier; *Modern French Decorative Art*, vol. ii; *Elements of Domestic Design*, by A. J. Penty; *Architectural Shadow Projection*, by J. M. Holmes; *Mouldings of the Tudor Period*, by Small and Woodbridge; *Isometric Drawing of St. Paul's Cathedral*; and *The Ancient Bridges of the South of England*, by E. Jervoise, published on behalf of the Society for the Protection of Ancient Buildings, together with many others of interest alike to the architect, student of architecture, and all concerned in building and interior decoration.

★

Among the exhibits of MESSRS. ADAMSEZ, LTD. (Row D, 71) is the firm's patent Epic system of flushing closets in range form, which is widely adopted for factories, schools and conveniences. This patented arrangement is claimed to have proved of great service in ensuring thoroughly efficient and sanitary flushing of closet ranges. One of the chief features is that the large reserve of water in the trough enables a flush to be obtained at any time. They are also exhibiting a range of fireclay lavatory basins of modern design, amongst them a selection of coloured basins for high-class domestic work; the colours being of various pleasing light shades which would harmonize with almost any surroundings. They also show a range of high-grade closet suites in Adamesk fireclay ware, both "high-level" type and combination pattern.

★

The CORK INSULATION CO., LTD., who manufacture and instal Eldorado cork tiles, are exhibiting at Stand 201, Row K. Several styles of tiling are shown, each suitable for different types of buildings. The cork tiles are claimed to be durable, non-slippery though polished, warm, noiseless, easily cleaned, and hygienic. They are made in light, medium and dark brown. The tiles are stocked in a wide range of sizes with coved skirting for finishing at wall angles. There are also shown on the stand many photographs of completed floors, such as banks, schools, clubs, libraries, residences, etc., where Eldorado cork tiles are in use.

★

On their stand (Gallery, 46), BERRY'S INSULATING AND BUILDING PRODUCTS, LTD., show Tricity Sunrays in a special setting, designed for use in cottages and countrified houses. Special samples of mottled coloured facing bricks are also on view. These bricks give a pleasing effect, cool in summer and a warm welcome in winter, and show how monotonous appearance usually may be relieved, as in the case of the Pylon chimney and brick fireplaces. The latest electrical features for modern kitchens, such as built-in ovens and cool chambers, and Cassac art flooring and ornamental walling slabs, are also displayed.

★

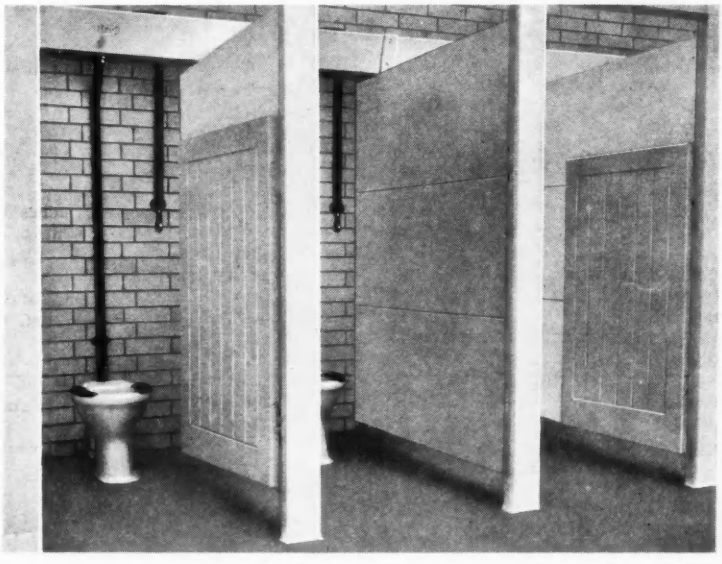
Following are the exhibits of W. E. WHITESIDE, LTD. (Row B, Stand 17). A reproduction of an Early Georgian wrought-iron gate, together with a reproduction of the panel at the Queen's College, Oxford, and the Beverley panel, from the Choir Gates of Beverley Minster. Door furniture for architectural and domestic use: a full display of door furniture is being exhibited in bronze and brass, and particular attention is drawn to the Monel Metal exhibits, also Silveroid. Répoussé work: a demonstration showing the actual production of foliage from sheet metal in charcoal iron, Staybrite, Monel and Silveroid, similar to the Tijou répoussé work. Spinnings (spun metal work): a number of interesting exhibits showing the use of spinnings and castings from the firm's own foundry in bronze, Monel, aluminium, brass, and kindred metals. Ecclesiastical art metal is represented by a number of interesting exhibits. Other exhibits include keys, caskets and trophies, letters and numerals, lanterns, signs, vanes, door and window furniture, gates, railings and grilles, altar fittings and rails.

★

The stand of LAMINATED WOOD PRODUCTS, LTD., manufacturers of patent laminated flush doors, panelling, flooring, partitioning, etc., and of plywood and all kinds of veneer work, is designed by Mr. Herbert A. Welch, F.R.I.B.A. In designing it, Mr. Welch has made use of the firm's special compressed cork and plywood partitioning, specimens of which are shown in section. Among the principal exhibits are the firm's patent flush laminated doors which are shown in various types, from the plainest hospital door to the most decorative patterns, but all in keeping with modern architectural design. The doors are made throughout at the company's own works on a laminated construction, with gaboon mahogany, and pressed together with waterproof cement. Examples of panelling are also exhibited, all guaranteed against warping and shrinking, under the effect of central heating. The doors and panelling, etc., shown are all finished in the exhibitors' spraying shop, and illustrate the very latest methods in cellulose polish and enamel. The stand is No. 266, Row O.

★

MESSRS. THOS. PARSONS AND SONS (Row G, Stand 135) exhibit H.M.S. Endelline, showing some practical applied examples of their enamels, varnishes and paints. The examples include the following specialities for which the undermentioned claims are made. Endelline enamel, for interior or exterior use, producing a porcelain-like finish that may be repeatedly washed without deterioration. Endelflat enamel (flat), for interior use, producing a soft, almost dead flat finish of a hygienic and washable character. Lacreite enamel: when work will not bear the expense of a higher quality enamel like Endelline, a satisfactory substitute will be found in Lacreite, either for inside or outside work. Unicote flat finish, the surface of which can be repeatedly washed without deterioration. Parsons' gloss print, a varnish paint of exceptional body and working qualities for general exterior and interior work. Parsons' undercoating body white, a ready-mixed undercoating paint with a surface particularly adapted to take the finishing coat of gloss or flat enamel; can be tinted to suit the finishing colour. Parso-Glaze, a scumbling paint producing decorative effects quite different from those obtained with ordinary opaque paints. Parsons' rubber stipplers: demonstrations in the use of these in conjunction with Parso-Glaze are given on the stand. Parso-Tex: an oil-bound plastic paint for producing textures

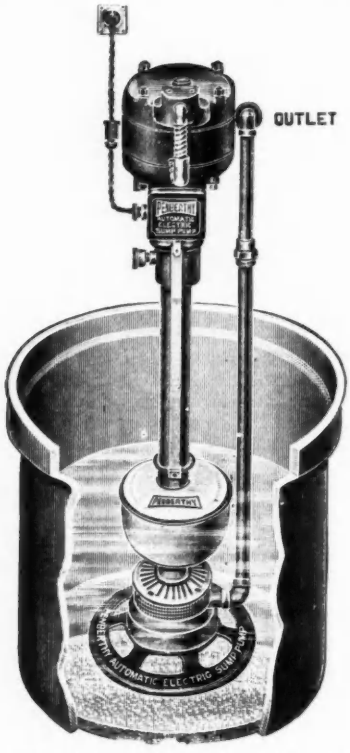


The Epic system of flushing water-closets.

on interior walls. The material can be glazed immediately without any further preparation; it covers approximately ¾ to 1 yard per lb., according to the texture required. Water-Tex: a powder which, when mixed with water, produces a plastic paint which dries as hard as marble. In medium textures it dries hard enough overnight to be sealed and painted the next day. Parso-stone: a paint which gives a rough, stone-like surface on any material. It can be used for inside or outside work, and is made in four colours.

*

W. H. WILLCOX & CO., LTD. (Stand 231, Row N) exhibit their Penberthy automatic cellar or sump drainers. These are for use where water accumulates by seepage, overflow, flood or tidal troubles, which cannot be drained off directly, either because the flow line of the sewer is not deep enough, or because obstacles intervene between the pump and sewer. Among the more common instances of their use are for cellars of buildings where no sewers exist, or where the sewer line is above the basement floor level. They are also used for deep cellars of buildings, boiler rooms, settling basins, flywheel and elevator sumps, tunnels, etc. While ordinarily a seepage may amount to only a small trickle, its flow is continuous and if neglected the accumulated water soon becomes a real menace to health and property. To keep such places dry the incoming water is most economically disposed of as it accumulates, by means of an automatic water-operated, or an automatic electrically-operated cellar drainer. Local conditions determine which is preferable. The Penberthy automatic cellar and sump drainer, Model "E" (electric type) is, as its name denotes, operated automatically by electric motor and impeller. It operates only when water accumulates, and immediately ceases action when the water has been disposed of. Model "L" (automatic water-operated type) is for operating automatically by water pressure from the mains in dealing with flood troubles. This drainer comprises a gunmetal ejector and operating valve with copper float and iron strainer. The ejector is fitted above the float instead of beneath, as in the model "R." A foot-valve in the strainer seals the suction pipe when the drainer stops working, holding the water in all the pipes, so that it is always primed ready to start instantly. The operating valves open and close instantly by action of the water float. In the model "R" (automatic water-operated type) the ejector is placed under the float and below water level, thus saving suction lift and adding to its efficiency. It has a radial arm marked from 10 to 100 lb. to suit the varying operating pressures in water supply. The float remains nearly submerged until valve opens, securing fullest discharge of the accumulated water. Rubber buffers protect the lever and valve stem from shock. The float operates the drainer automatically. The rotary valve reduces all stem packing friction. The rotary packing method is based upon natural laws; no springs. Movement is simple and unaffected by dirt. It requires little sump space owing to the patented float built around the suction tube. It is fitted with interchangeable bronze valve, and the valve seats are protected against dirt by a strainer in the water-supply pipe. The closing of the valve is positive, avoiding any wastage of water. This type is claimed to operate with economy at from 10 to 100 lb. water-main pressure, with lever and link motion adjustable to different pressures.



The Penberthy automatic cellar and sump drainer.

*

On Stand 137, Row G, are examples of the application of the many asbestos-cement roofing and flooring materials, and of the interior and exterior decorative sheets marketed by ASBESTOS CEMENT BUILDING PRODUCTS, LTD. This company incorporates the selling organizations of Bell's Poilite and Everite Co., Ltd., British Fibrocement Works, Ltd., and Turner Brothers Asbestos Co., Ltd. (for asbestos-cement products), and has staged many striking examples of the application of asbestos-cement. The roof surfaces of the stand show Turners' Trafford tiles, Everite Bigsix corrugated sheets, Poilite pantiles, Turnall hand-made plain tiles, and Serval asbestos-cement slates. The outer walls are covered with Everite standard corrugated sheeting and Poilite flat sheets with half-timbered effects. The end gables are carried out in Poilite rough cast sheets. The application of louvres is shown in the jack roof. Of the four cubicles, one displays Serval asbestos felt for roofing, sarking and under-felting, and the other three are devoted principally to decorated wall sheets. Of these three, the first has a bath fitted with asbestos-cement moulded bath panels, the walls covered with Turnall stipple-glaze decorated sheets, and the floor laid with Poilite rigid rubber floor tiles. The second cubicle shows a kitchen where the walls are covered with Turnall stipple-glaze decorated sheets, Decolite composition flooring being used for the floor. In the third cubicle the walls are of decorated Poilite, the floor being tiled with the same material. The interior of the stand displays Turnall oak grained asbestos sheeting in the lounge and hallway, and the front entrance of the stand shows the external application of decorated Poilite. Everite flue pipes are also exhibited, and the gutterings, etc., of the building are carried out in Everite rainwater goods. Various displays of Everite pressure pipes for water mains, Everite curved corrugated sheets, Poilite diagonal pattern slates, Turnall asbestos wood, etc., are arranged on the stand.

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Essex board, the product of THAMES BOARD MILLS, LTD., has been a feature of the exhibition for nearly ten years. The stand itself (Row G, 141) is designed in a modern style to demonstrate the structural possibilities of this wallboard. Essex board is claimed to be one of the few materials of the kind manufactured in this country, and this point is being strongly emphasized by the manufacturers. Among the features of Essex board demonstrated on the stand are its adaptability and its matt surface. It is found that with one coat of paint or distemper pleasing results can be obtained. In addition to ordinary interior lining purposes, it is used to a large extent for alterations, renovations, repairs and a host of minor purposes. A large number of the stands at this and other exhibitions are constructed of Essex board. The material is made in three thicknesses, namely, $\frac{3}{16}$-in., $\frac{1}{4}$-in. and $\frac{5}{16}$-in., and in a wide range of useful sizes.

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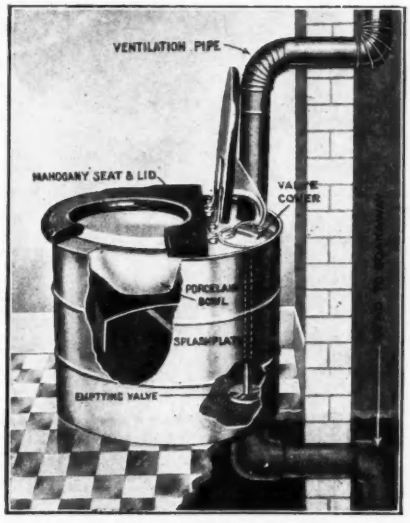
A very striking example of the work of the L.C.C. SCHOOL OF BUILDING, BRIXTON (Gallery, Stand 36), is the façade of the exhibition stand which has been specially designed by a member of the school staff and erected by the staff and students. The plaster work and decorations have been executed entirely by students of the day school. Special interest attaches to demonstrations of craft instruction by working parties of students from the junior day school. These parties are at work each day during the exhibition. The examples of school work on exhibition include brickwork, masonry, plastering, carpentry and joinery, plumbing and painters' and decorators' work from all sections of the school, and woodcutting machinists' work from the evening department. All the work shown reaches a high standard of craftsmanship, but several examples call for special reference and will repay careful inspection. Of these may be mentioned a geometrical stair and wreathed handrail, constructed to a scale of two-thirds full-size. The example is incomplete but demonstrates the grade and standard of instruction reached in the evening school and also the combination of effort between the woodcutting machinists and joinery students. The masonry exhibit includes details of vaulting, domes and arches of double curvature, while modern constructional requirements are illustrated by examples of

the enclosing of steel stanchions in stonework. The work of the plastering classes includes a complete Georgian ceiling and cornice, modelled, moulded and cast in fibrous plaster by two junior day school boys. There is also a Georgian beam and soffit. The plumbing section is represented specially by a turret roof of simple but effective design; the lead covering is admirably executed, and demonstrates the skill which can be acquired by boys under the close supervision of school instruction. There are also many examples of draughtsmanship from all sections of the school in architecture, building construction and interior decoration, and a selection of drawings submitted in a recent competition for shopfront designs.

Typical of modern housing convenience is the Ure Back-to-Back grate exhibited by ALLAN URE & CO., LTD. Economy is the essence of the situation, and in this respect the Back-to-Back grate provides two fires in one. The outstanding feature of the grate is that the coals burning in the fireplace supply warmth and cheeriness to the living-room, and at the same time provide the requisite heat for cooking, and all other domestic purposes in the scullery. It is claimed that on washing-day the living-room is immune from the steam of drying clothes, and at meal-times it is free from the smell of cooking. The manufacturers state that there are over 40,000 of these grates in operation all over the country. Another notable exhibit is the Ure interior cooker, which has all the appearance of a room grate with tiled cheeks. These are being installed, not only in housing schemes, but are being freely adopted where the old-fashioned ranges are being taken out. Behind the canopy of the Ure interior cooker is an oven for cooking, and it also supplies the hot water for all domestic purposes. This grate has been designed for houses which have not been planned for the Back-to-Back type. These exhibits are on Stand 84 in the Gallery.

*

On Stand 35, Row C, ELSAN MANUFACTURING CO. exhibit their chemical indoor closets, which include the Elsan overground permanent self-emptying model, suitable for bungalows and all houses not connected with public sewers; and the Elsan underground tank permanent self-emptying model, for factories, works, sports grounds, private houses, etc. The Elkol flake chemical, used in conjunction with the above two models, converts all matter into an innocuous liquid, which is led into a soakaway, where it percolates into the ground, and the bath and sink wastes may also be drained into same. Elsan portable models, also shown, as used in cottages, caravans, motor-coaches, airships, aeroplanes, etc. The chemical used with these models is the new Elsanol (patent applied for), which sterilizes and deodorizes the sewage. This chemical possesses, it is claimed, unique properties, being miscible with water and non-inflammable, and, further, it acts as a seal. The Elsan has been recommended by medical and sanitary authorities and is claimed to be a safe and efficient system for unsewered buildings. It has been adopted by corporations, councils, Govern-



An Elsan chemical indoor closet.

ment departments, and is in use in all parts of the world. The Underground model is particularly suitable for installing where there are a large number of people. The appliances are now fitted at the British Industries Fair, Birmingham.

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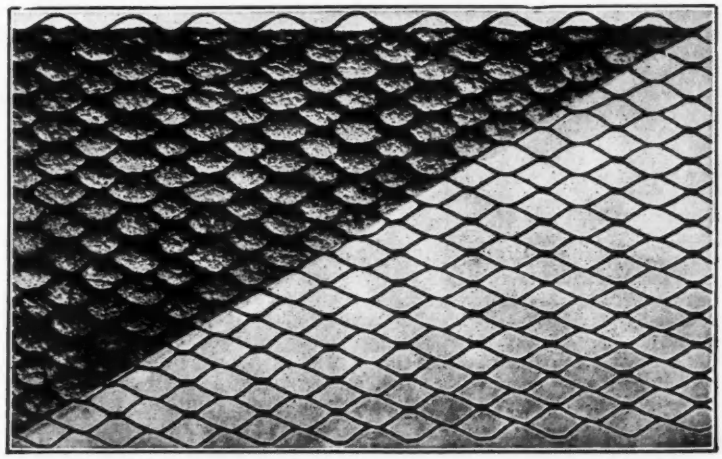
SAL-FERRICITE AND TRADING CO., LTD. (Row O, 274), exhibit Sal-Ferricite, a chemico-metallic substance which, when mixed with concrete or granolithic work, is claimed to make it harder, more durable, dustless and impermeable to oil, water, and some organic acids, etc. In addition to these qualities, it is claimed to help to get over the difficulty of gauging concrete with the exact amount of water, because it seals up the surface and allows complete hydration to go on; consequently, there is no water left to create voids from evaporation. Other claims made for the material are as follows: it forms a metallic oxide which expands in the concrete until the pores are sealed. By making concrete waterproof, all that expansion and contraction due to absorption and giving up of water is eliminated and, it is said, this is the chief cause of cracking. The use of the material has also been developed by a special method so as to produce a floor on one-piece base concrete without the addition of a topping,

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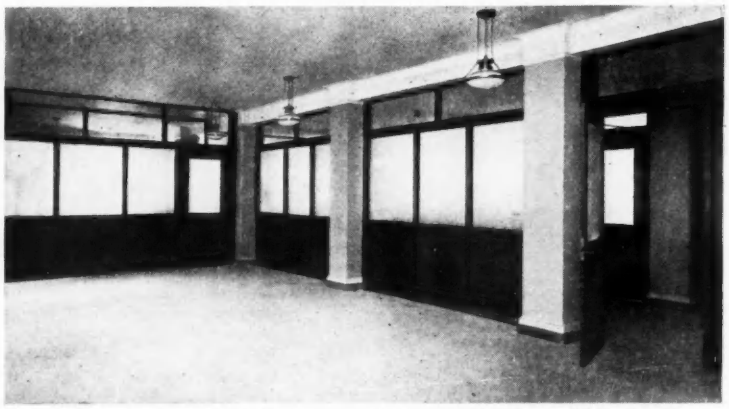
The EXPANDED METAL CO., LTD., are patentees and manufacturers of Expamet expanded metal, and engineers for all forms of reinforced concrete work. Their exhibit (Row G, Stand 142) consists of samples of their products, with examples of their uses, and photographs of various works carried out. Expamet expanded steel has, it is claimed, been in use all over the world for more than thirty-five years as reinforcement for concrete in foundations, walls, floors, roofs, bridges, culverts, etc. Other specialities shown are RR 6-in. mesh and treble-layer Expamet reinforcement for concrete roadways, pavings, etc.; BB and Expamet lathings for interior and exterior plasterwork; Ribmet for concrete and plaster work; Exmet reinforcement for brickwork, concrete-block work, partition slabs, asphalt, etc.; and mild steel wall-ties for cavity walls.

*

On the stand of YOUNG, OSMOND AND YOUNG, LTD. (Row C, Stand 25), are the following Unity specialities: Tubular electric heaters for the heating of schools, churches, offices, factories, hospitals, theatres and private houses, etc.; electric towel airers for floor or wall mounting, available in chromium or nickel-plated finish; tubular electric heater with gas-tight fittings, as used in cellulose paint shops, powder factories, petrol depots, etc.; tubular four-bar radiators for use where wall space is limited, available with or without three-heat control; thermostats for use in conjunction with Unity tubular electric heaters, to eliminate waste and to maintain a constant temperature; tubular electric heaters bent for use in bow windows, curved rows of theatre seats, etc., tubular electric linen cupboard heater; anti-condensation device for prevention of condensation on show windows; sections and component parts of Unity tubular electric heater, showing all details of construction, and Unity car



Showing key obtained with plaster for "B B" expanded metal lathing.



Roneo steel partitions in the new Underground Offices, Westminster.

bonnet heater for complete protection from frost with safety. A selection of blue prints and photographs illustrate some of the more interesting Unity tubular electric heating installations which have recently been carried out.

*

The steel doors, partitions, shelving, cupboards, etc., exhibited by RONEO, LTD. (Row F, 107), illustrate how it is possible to obtain any architectural treatment which may be desired. Among the exhibits are steel partitions made of standard sections so constructed that they can easily be taken down and re-erected in a new position if conditions make this desirable. Partitions are packed with sound- and fire-resisting material, finished with stoved enamel and cellulose in any colour desired. The counters, desks, filing cabinets and shelving in this exhibit indicate the great advance which has been made in England in the manufacture of steel furniture and fittings. The drawers exhibited are on ball-bearing suspension slides, and can be operated most easily when fully loaded. Steel fittings obviate the danger of warping and cracking, saving continual repairs. They have no joints or cracks in which microbes can accumulate, and are easily cleaned.

*

Tentest insulating fibre board, the product of the TENTEST FIBRE BOARD CO. (1929), LTD., is claimed to be a thoroughly efficient insulator, affording protection against excessive heat, cold, damp and noise. Its appearance, when decorated, can be seen on the walls and ceilings of the dining-room of the Silent House, erected from the designs of Mr. A. Trystan Edwards in the Gallery. Other interesting applications of the material may be seen and discussed at the firm's stand (129, Row G).

*

On the stand of BLUNDELL, SPENCE & CO., LTD. (Row E, 88), Pammel petrifying liquid enamel is given special prominence. Blundell's liquid stainers are also on view. The ease with which these can be used for tinting should be seen by everyone interested in decoration. The stand is painted with Japonette, a flat oil paint, with a matt washable surface, and Blundell's oil-bound water paint. Both these materials are used very largely in all parts of the country. There is also an interesting collection of gums and other raw materials used in the paint industry. Visitors should take away with them a copy of Blundell's " Guide to Architects and Contractors."

*

The stand of W. T. LAMB AND SONS (Row G, 136) is constructed in 2-in. facing bricks, forming a brick pavilion in which are two brick mullioned windows. The brick dressings are of antique multicoloured facings, the main work being in various types of purple and grey stocks. At the entrance of the stand is a lych gate, with piers formed in brick. The roof of the lych is covered with the Godstone antique tile. The stand is bounded by a dwarf wall, into which panels of many different types of facing bricks have been inserted to demonstrate part of the very wide range which the firm can offer. The courtyard thus formed is paved with the firm's wood burnt paving brick and a sundial and birds' baths are placed in the centre of each wing. The brick fireplace inside the pavilion is added as a reminder that this firm now claims to be the largest brick fireplace manufacturers in the country. Many loose samples of facing bricks, roofing tiles, quarries, glazed tiles, paving bricks, and fireplace briquettes are on the stand.

*

An exhibition of students' work is shown by the WANDSWORTH TECHNICAL INSTITUTE on Stand 31 in the gallery. The Institute is exhibiting for the first time. It has been in existence for thirty-five years and has shown uniform progress until it is now one of the most important in London. It provides, among other courses, tuition of a practical nature to meet the requirements of the different classes of students engaged in the various branches of architecture and building, whether in the office, workshop or on buildings in the course of erection. The exhibits illustrate the work of students in carpentry and joinery, plumbing, plastering and painting and decorating. The plastering exhibit—the work of apprentices—is particularly pleasing and will bear comparison with the best work of skilled journeymen. The stand has been designed and constructed by the staff and students of the carpentry and joinery classes.

*

The exhibits of the KLEINE PATENT FIRE-RESISTING FLOORING SYNDICATE, LTD. (Row F, Stand 113), consist of Kleine floors, the Duromit surface floor, and coloured illustrations of Silentium, the firm's patent method of sound-proofing floors.

Ideal domestic boilers for hot-water supply are shown by the NATIONAL RADIATOR COMPANY (Row O, Stand 270). These burn coke or anthracite and consume dry kitchen refuse. For soft-water districts the boilers can be supplied rustless. The new No. 00 Ideal domestic boiler has been produced for use in the smaller type of residence, and should create considerable interest. The Ideal Cookanheat, now supplied with insulating jacket, lifting grate, and giving complete open fire, provides facilities for cooking, hot-water supply and warmth for several rooms, all from one fire. The Ideal Classic boilers for central heating and constant hot-water supply by means of the Ideal indirect cylinder, and a selection of Ideal Classic and Ideal hospital radiators are also exhibited, as well as the Ideal towel rails in nickel and chromium-plated finish. There are Standard sanitary appliances in colour. This exhibit consists of a bath, lavatory basin and water-closet. The fittings are made in eight colours, ranging from ivory white to tulip black.

*

On the stand of WM. OLIVER AND SONS, LTD. (Row A, 2, 3 and 4), are found samples of: Austrian wainscot oak in both square-edged boards and planks and billet cut; teak in a magnificent range of sizes; ten sample logs of Ancona walnut, specially fashionable in the shopfitting world just now; Cuba and Honduras mahogany, for bank and office fittings; English oak, genuinely dry and very specially selected; English wainscot, extra special quality for highest class joinery, and thoroughly seasoned; English walnut; and some logs of sycamore. All the hardwoods in common everyday use amongst builders are kept in stock.

*

On the stand of SIKA, LTD. (Row P, 280), the main exhibit consists of a practical demonstration of the waterproofing material Sika. During the demonstration the effectiveness of the material in sealing leaking concrete and brick walls is shown, and the demonstration concludes with the sealing off of a jet of water of over 1 inch in diameter running full bore from tanks of 500 gallons capacity situated on the floor above. The company's subsidiary compounds, Igas, Igol, Conservado, Purigo, etc., can also be seen. A staff of qualified engineers are in attendance to give advice and assistance in any waterproofing problem submitted.

*

Four different applications of the Coburn system of sliding-door fittings are shown under actual working conditions by O'BRIEN, THOMAS & CO., LTD. (Row F, 120). These are slide-inside garage door fittings, which open against either inside wall of the garage, leaving the opening entirely free from obstruction; double doors sliding past each other and used where only half the opening is required at one time; a single sliding door; and Coburn (system) folding door gear, as used for folding partitions in schools, hospitals, etc. The examples are mounted on No. 1 size of track and fittings which are used for doors weighing up to 3 cwts.; but heavier fittings to carry any weight up to 1 ton

are on view. Rustproof finish has now been introduced as standard on all the working parts of the trollies, hangars, etc. The track and support brackets are supplied in black enamel finish.

*

One of the chief attractions on the stand of SOOLE AND SON, LTD. (Row J, 187), is the Medigo flush door. This consists of a skeleton framed deal core, finished on each side with plywood, glued solid, and fitted on all edges with a solid dovetailed margin piece, which gives special protection to the plywood at the bottom of the door. This door is guaranteed to be specially suitable for buildings where central heating is installed. Standard windows are another feature worthy of special notice. These windows are quoted complete, with metal opening lights and steel-cored lead lights, and can be supplied in either deal, English oak, or teak frames. Front doors, interior door and oak panelling are also exhibited.

*

THE SUSSEX BRICK CO., LTD. (Row J, 183), are makers of the following bricks, which are all on view: Southwater engineering bricks, Southwater red pressed facing bricks, Southwater mottled pressed facing bricks, Wealden sand-faced multi-reds, Wealden kiln stock facings, Warnham S.B.E.C. hand-made kiln stocks in purple, medium and light shades, Warnham S.B.E.C. hand-made flared reds, Warnham S.B.E.C. hand-made bright reds, Wealden stocks, Tonbridge hand-made kiln stocks, Tonbridge hand-made sand-faced multi-reds, Tonbridge hand-made sand-faced reds, Tonbridge hand-made multi-red roofing tiles, Tonbridge hand-made dun colour roofing tiles, Lingfield wirecuts, Warnham common pressed, Tonbridge wirecuts, Guildford purple stocks, Guildford grey stocks, Guildford sand-faced reds, Guildford wirecuts, Guildford roofing tiles in red and dark shades, Guildford drain pipes, Farnham sand-faced reds, Farnham stocks, Farnham roofing tiles in red and dark shades, Crondall roofing tiles in red and dark shades, Crondall sand-faced reds, Seale lime, Wealden sand-faced multi-red briquettes, and Wadhurst white silica bricks.

*

THE GRINDING, MIXING AND SEPARATING CO., LTD. (Row P, 281), on their stand show the following: Totally enclosed patent single roller mill specially designed for use on cellulose. New patent Super single roller mill with divided hopper for multiple grinding. Standard patent single roller mills for paints, enamels, etc. Improved heavy type three roller mill, suitable for pastes, paints, printing inks, etc. Twin whirlpool mixer arranged with power-driven mechanical lift for pans. Standard type whirlpool mixers with removable pans and mixing gear. Edge runner with positively driven single runner. Horizontal pug mixers, single or twin, for pastes or liquids.

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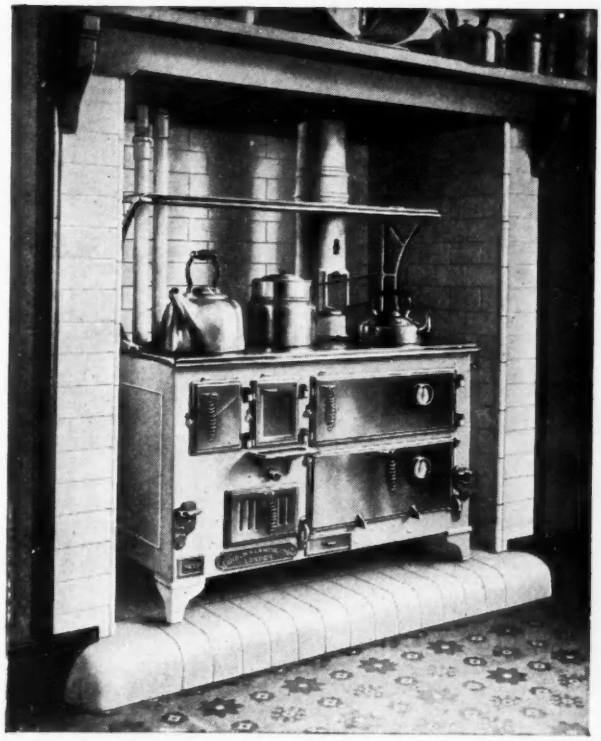
At Row E, Stand 85, that of the RUBBER GROWERS' ASSOCIATION (INC.), architects, builders and constructional contractors are able to study rubber at first hand, and ascertain how the resilience, durability, elasticity and abrasion-resisting properties of the commodity can be utilized in the most satisfactory manner. Rubber flooring, sponge rubber carpeting, crazy paving, sponge-backed moquette carpeting, rubber roofing material, expanded rubber—which is claimed to be much lighter than cork, and to be invaluable for sound deadening and vibration absorption—rubber paints and other accessories are prominently displayed.

*

ANTHRACITE RADIATION, LTD., are exhibiting on Row L, Stand 215, a full range of Glow-worm boilers, including their latest model, the Bijou, which is rated at 25,000 B.T.U. All Glow-worm boiler bodies are guaranteed against fracture for three years from date of invoice. The No. 4 Glow-worm boiler is the latest addition, and is designed for large town or country houses, small hotels, etc., where three or four bathrooms are in constant use. It is suitable for fixing in conjunction with a 150-gallon hot-water cylinder or, alternatively, a 90-gallon cylinder and a number of large radiators. Various models of the Kooksjoie ranges are shown, including two new models, the No. 3B 48 ins. and the No. 5A. These ranges are designed to burn smokeless fuel, but it is claimed that they will readily burn any fuel, if proper attention is given to cleaning the flues when soft coal is used. When burning anthracite, it is said that the flues only need cleaning once in three months, and the fire need never be let out. These ranges are made in all sizes from 30 ins. to 84 ins. long. There is, therefore, a size for all kinds of establishments. The No. 3B 48 ins. range is designed for houses where cooking is required for from twenty to thirty people. It is not fitted with a boiler, as the best results in this size household are obtained by fitting an independent Glow-worm boiler. The No. 5A Kooksjoie range is designed for cooking for seventy people. The Glow-worm open fires, which are becoming very popular, are designed to burn smokeless fuel, but they also will burn any other kind of fuel. They are fitted with gas lighters for ease of ignition, and can readily be fitted into existing fireplaces or fireplace recesses. The Osobrite stoves are designed to burn anthracite or any other fuel. When burning anthracite they can be kept alight throughout the winter and can be used with the doors open or closed. An entirely new apparatus will be called the Builder's Set, or Complete Hot-water Installation. This comprises one of their No. 01 Junior Glow-worm boilers, with a 20-gallon hot-water tank mounted on top of the hotplate by means of standards and complete with the necessary flow and return pipes. Unskilled labour can then connect a cold-water supply from the cold-water cistern, and take up from the top of the tank an exhaust pipe from which the hot-water supplies are taken.

*

The exhibit of JOHN THOMPSON BEACON WINDOWS, LTD. (Row H, 159), is of a most comprehensive character. In the compass of a small building on the stand, a wide range of types of windows and steel doors are shown. The Beacon standard cottage windows are of heavier section than are usually found, and the firm point out that this makes just the difference, and draw attention to the substantial fittings and their attachment to the window structure. The purpose made windows which are shown have various arrangements of glazing bars, showing the differences in architectural lines which are obtainable with Beacon windows. Prominence is given to the patent self-sustaining stay, which enables casement windows to



The Kooksjoie range. It is claimed that when anthracite is burnt the flues need cleaning only once in three months.

be held in any desired position, without any unscrewing or screwing up of fixing screws.

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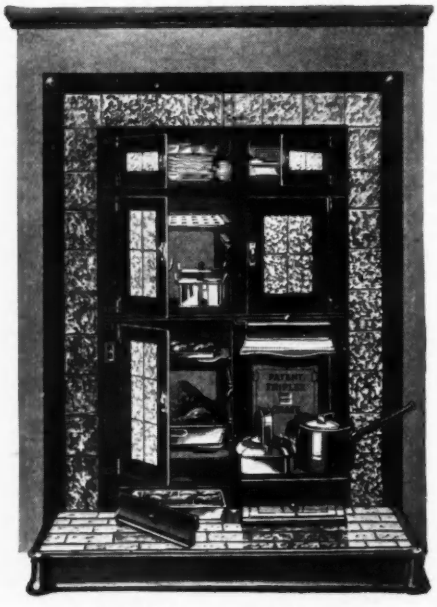
THE NATIONAL FLOORING CO., LTD., on their stand (208, Row L) show parquet flooring in all kinds of hardwoods from ¼ inch thickness; patent spring portable parquet dancing floors specially prepared from Macassar ebony; spiral spring dancing floors; oak Parlok panelling; Parlok wood block flooring in all kinds of woods; floor surfacing and polishing by hand or machine; non-cracking terrazzo and mosaic flooring; and composition flooring in all colours, etc.

*

The stand of HORTITEX GLASS, LTD. (Gal., 70), takes the form of a small building displaying Raylite and Hortitex glass, transparent to the ultra-violet rays of the sun.

*

Two types of Triplex grates—the C and the S—are to be seen on Stand 14, Row B, of TRIPLEX FOUNDRY, LTD. Triplex grates have become a very popular means for converting a kitchen into a living-room. The oven doors are either of reeded cast iron or are fitted with tiled centres as desired, and they open right back in line with the mantel, so that the light is fully admitted to the oven. It is claimed that whenever a fire is burning in the grate a Triplex oven is hot, and by simply opening the damper a good cooking oven is ready in a very short time. The flame from the fire travels underneath the oven first, then up the far-side flue and across the top of the oven, heating both oven and hot closet as it passes along. There is a boiling chamber over the oven



The Triplex grate, S Pattern.

which will keep saucepans boiling when cooking is being done in the oven below. It will also warm plates and dishes, and provide an excellent place for the stock pot. The hearth oven is placed directly under the bottom cooking oven, and derives its name from being actually on the hearth level; the heat from the flue above makes this a most useful addition for grilling chops and steaks or warming plates and dishes. A bath boiler is fitted and supplied with the Triplex grate, which is guaranteed to produce two hot baths per hour. The Triplex fire is always open, when at work or otherwise.

*

At HASKINS' Stand 144, Row G (E. Pollard & Co., Ltd.), are improved steel and wood shutters. One of these new interlocking shutters is installed on the stand, and visitors are given every opportunity of testing the shutter in action and proving for themselves the advantages of Firola and Rolador shutters. These fireproof shutters are for hotels, stores, etc., and where openings have to be closed in the event of fire. A few turns of the control handle, and both shutters automatically descend, closing the opening in ten seconds. For garages, warehouses, etc., single Firola or Rolador shutters can be fitted up to 50 ft. in length by any height, controlled by manual, mechanical or electrical operation. Scientific counter-balancing ensures ease of operation for any size shutter. For visitors interested in metalwork there are the specimens covering all types of bronze work, stainless steel, etc. Examples of panelling, furniture and decorations made in the firm's factories are also on view.

*

The RONUK stand (Row F, Stand 112), as on previous occasions, is built entirely of oak, stained and polished in accordance with the methods employed by the workmen of the firm's polishing contract department. The floor is of deal, stained with Colron wood dye, the Ronuk preservative stain, and afterwards polished with Ronuk. Colron is claimed to be the most transparent, penetrating stain made and the easiest of application. It is also claimed to be very economical in use, not to raise the grain, and to dry very quickly and thoroughly. It is obtainable in a useful range of colours, any of which can be blended in varying proportions to provide a wide range of intermediate tints.

*

Stand 40, Row C, of CROGGON & CO., LTD., is a practical example of constructional steelwork and is supplemented by photographs of garages, factories, cinema studios, hay sheds, etc. Fencing is another line in which this firm specialize, and they make an attractive show of their Ceeco gates and fencing. Many examples of wrought-iron and wire fences (including tennis court surrounds) are displayed, giving the visitor a good idea of the appearance of these fences when erected. The tanks, cisterns and cylinders shown are selections from standard sizes; special sizes are made up in a few days. Other steel products of interest are sashes, barrows, reinforcing rods, etc.

*

The stand (Row D, 56) of DRYTONE, LTD., takes the form of a tower in British Columbia pine and other woods, carried to a height of about 22 feet. The broad flat surface of the woodwork emphasizes the decorative effect produced by the Drytone patent processes for colouring woodwork chemically without stain. The stand itself contains a useful range of the Drytone standard doors in British Columbia pine and other woods. Other interesting exhibits are : The Drytone Cubbador, a novel form of front door fitted with a compact hall wardrobe in the panel—a device for a small hall where space for hats and coats is not easily arranged. Drytone sectional panelling in British Columbia pine and other woods, prepared in standard section for erection by builders on site. The Drytone panel desk, which is a small writing-desk that fits against the wall and takes practically no floor space. It is adaptable to a wall with or without panelling. The Drytone kitchen cabinet, is also shown.

*

On Stand 1 in the Gallery is exhibited the work of the students in the building department of the EVENING TECHNICAL INSTITUTE, London Road, Southend-on-Sea, of which Mr. M. Finn, B.SC., is the principal. The exhibits include : Brickwork and plastering section : Georgian chimney, church window in tracery brick, model of carving in brick, various types of arches and models of gelatine moulding, plaster casts, cornices, etc. Building construction : drawings. Carpentry and joinery : louvres, dado panelling, door details, pilaster panelling, and stair, roof and joinery details. Plumbing : examples of bossing sheet lead into various shapes, and bending and joint-wiping of lead pipe of all sizes, and lead burning. Special features are a rain-water head bossed out of one piece of sheet lead, and a rain-water head with lead-burnt joints. Surveying and levelling : drawings.

*

Carbolineum wood preservative, Peteroid coloured cements and Peteroid paint are exhibited by C. A. PETERS, LTD. (Row D, Stand 64). It is now over forty years since Carbolineum was introduced, and it has been supplied to most of H.M. Government Departments (War Office, Admiralty, Arsenal, Post Office Telegraphs, Crown Lands, Crown Agents, etc.); to all the leading railway companies; many corporations for wood-paving purposes; mine and estate owners; breweries, etc.; and all over the United Kingdom for the preservation of wood above and below ground. Peteroid permanently coloured waterproof cements are for all kinds of constructional decoration. The manufacturers claim that the cements are manufactured from the highest grade cement and indestructible mineral pigments, that colours never fade, and are proof against all action of the elements and all influences to which the most exposed buildings are subject. Peteroid cement paints are made in white and sixteen different colours.

*

Sundeala and Insulwood building boards are shown by the PATENT IMPERMEABLE MILLBOARD CO., LTD. (Row O, Stand 267). Sundeala is shown in various effects. This material, besides being used in buildings generally, has been supplied for panel work in the s.s. "Mauretania," s.s. "Belgenland," s.s. "Alcantara," s.s. "Doric," s.s. "Samaria," etc. It is also used in the

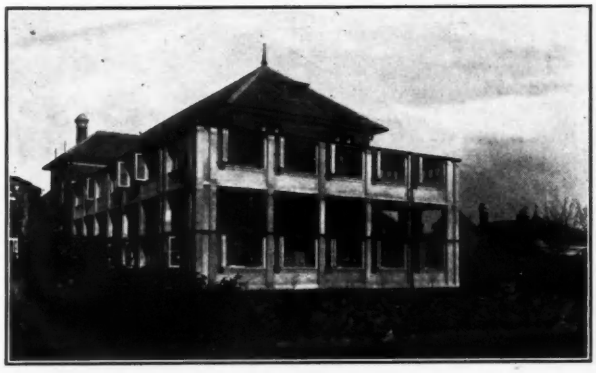
construction of railway carriages. Anyone entering a modern coach on the London Underground Railway can generally see a Sundeala ceiling for himself. Insulwood is, it is claimed, used where such conditions as sound absorption are required. Insulwood is also shown as a panel board. It can also be used as an external and internal sheathing and also as a plaster base, and is shown in various decorated effects.

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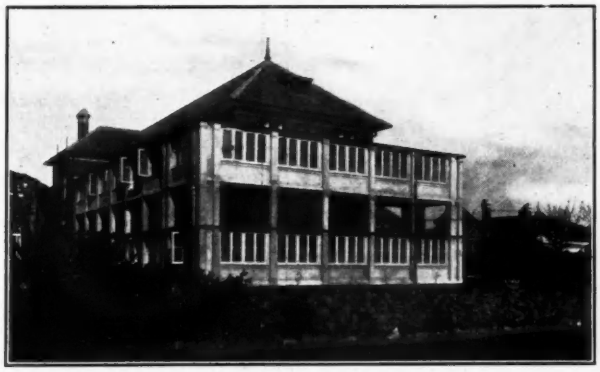
Row H, Stand 145, is occupied by BRYCE, WHITE & CO., LTD., who exhibit doors, mouldings and oak flooring. Castle brand doors are made of well-seasoned Swedish redwood, mortised, tenoned and wedged. They are available in a very wide range of patterns for both interior and exterior use, and may be obtained from stock in all the standard sizes. The Red Cone brand doors are of Western pine, specially selected for the beauty of its grain and freedom from knots and defects. The rails and stiles are solid, with panels of rotary-cut figured plywood. They are widely used where stained or polished doors are required. Stocks are held of distinctive patterns in many sizes. Columbian pine doors can be supplied from stock in a wide range of attractive designs. Brycite mouldings are manufactured from White Sea and first-class Swedish timber, but can be supplied in hardwoods where desired. Also exhibited is kiln-dried selected American oak flooring, T. and G. and ends matched, from stock in the following sizes : 1 in. by 3 ins. (nominal), finished size $\frac{13}{16}$ by $2\frac{1}{4}$ ins. face; and 1 in. by 4 ins. (nominal), $\frac{13}{16}$ in. by $3\frac{1}{4}$ ins. face. The firm also hold large stocks of garage doors and gates, kitchen dressers, chimney pieces, turnery, trellis, matchings and joinery in their London, Southampton and Bristol warehouses.

*

British Empire hardwoods and veneers, also veneered panels with face veneers of Imperial origin, are exhibited by WILLIAM MALLINSON AND SONS, LTD. (Row H, 151). They include: English wainscot oak, walnut, sycamore, chestnut, beech, ash. Australian blackbean, silky oak, Queensland black walnut, myrtle, rose mahogany, jarrah, hoop pine, Kauri pine, Tasmanian oak. Canadian maple—plain and figured, birch—plain and figured, Sitka spruce, British Columbian pine, hemlock, Quebec pine. Indian laurel, teak, silver greywood, Padouk, rosewood, Ceylon satinwood. Honduras mahogany, African teak, pencil cedar, etc.



Esavian windows fitted to Royal Victoria and West Hants Hospital, Bournemouth. open—



—and closed.

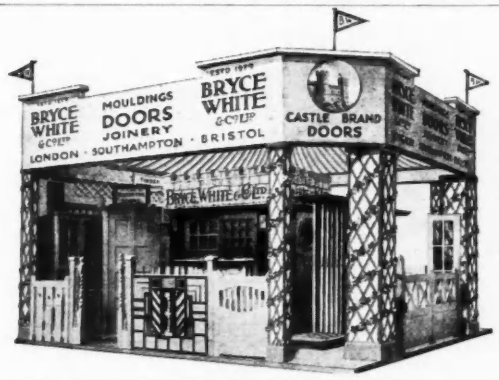
On Stand 86, Row E, the EDUCATIONAL SUPPLY ASSOCIATION, LTD., show a number of adaptations of Esavian folding and sliding movements for windows, partitions and doors. The movements are suitable for attaching to windows as low as 2 ft. 6 ins. in height. They are shown attached to doors 19 ft. 6 ins. high, and have been fitted to doors for aeroplane sheds 32 ft. high. They can also be used for covering openings of any width and have been fitted to aeroplane sheds 100 ft. wide. The firm's ordinary folding window has been fitted to a large number of open-air schools in and around London, and in all parts of England, Scotland and Wales. A special fitting enables bow windows to be thrown open in a similar way to the large circular French window fitted on the stand. Mr. H. G. Wells was one of the first to have a bow window of this type fitted to his house at Easton Glebe. The glazed Esavian folding and sliding loggia doors are arranged to fold flat against the wall in the same plane as the door when extended. This principle can also be applied to the internal folding and sliding partitions. The doors are opened and closed by winding gear. It is claimed that a child of ten can operate a door 19 ft. 6 ins. high and 100 ft. wide. Large doors are also shown, suitable for municipal garages, loading docks and all openings where considerable height and width are required. These are also opened and closed with the greatest ease.

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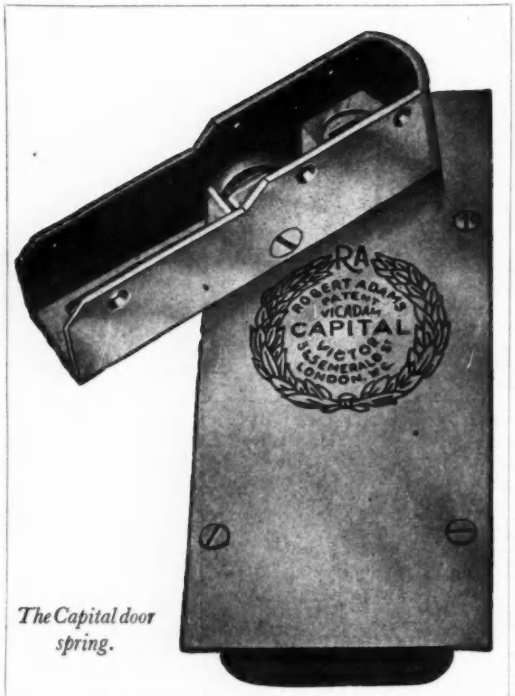
The HEMEL HEMPSTEAD PATENT BRICK CO. LTD. (Row F, Stand 104) are manufacturers of the Hempstead terra-cotta partition blocks, hollow floor tiles and building blocks, all of which are claimed to be fire-, sound- and vermin-proof. They are guaranteed fire-resisting to melting point of steel, 2786, Fahr., and to have a crushing strain of 3,540 lb. per sq. inch. The advantages of using the partition blocks are that either nails or screws can be driven into them. They can also be sawn or tooled, and are made either keyed for plastering or smooth both faces. The blocks have been approved by the Ministry of Health for use on housing schemes. The firm's associated company, the Coronet Brick Co., Ltd., exhibit, on the same stand, many of their specialities, which include pressed red, multicoloured and antique facing bricks, tapped wire-cuts, sand stocks in various colours, paving bricks, quarries, oven tiles, copings, red and buff chimney tops, air bricks, architectural terra-cotta, hollow partition blocks, hand-made sand-faced roofing tiles in various colours, ridge tiles, fittings and finials.

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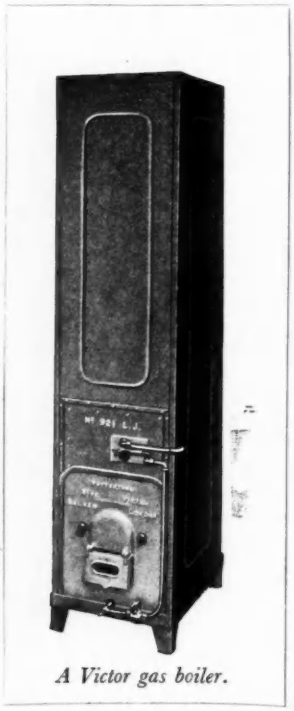
On Stand 139, Row G, the CRITTALL MANUFACTURING CO., LTD., show metal windows, both standard and purpose-made, suitable for all kinds of buildings. The firm's universal casements—such as are



The stand of Messrs. Bryce, White & Co., Ltd.



The Capital door spring.



A Victor gas boiler.

used in banks, public buildings and other large premises—have a number of new features, such as ring friction centres for horizontally centre hung windows, and a patent locking device for vertically centre-hung ventilators, which eliminates the necessity for stays on this type of window. The firm's metal vertical sliding sash is claimed to be a modern improvement on the wood sash and to have all the advantages, and none of the disadvantages, of the latter. It is constructed of casement sections, and is said to be entirely weather-proof. The sliding members to prevent rattling are fitted with spring rollers, which press them against the side of the channel in which they slide. The balance weights are hung on stout chains instead of cords, thereby minimizing the danger so often associated with sash-cord breakages. There are various ways of opening and shutting the metal sliding sashes, one of the most popular being by means of a cord and pulley fitted to one jamb. Among other exhibits are the firm's balance window for hospital wards, etc. (awarded the Royal Sanitary Institute's silver medal, 1928 and 1929); sliding folding windows for open-air classrooms; and a sliding flyscreen for outward opening standard metal windows (commended by the Royal Sanitary Institute, 1930).

*

ROBERT ADAMS exhibits (Row D, Stand 52) a comprehensive selection of patent door and window fittings. These include the latest patterns of their Victor door springs for swing doors and single-action doors. They are fitted with improved check action for fixing into the floor or overhead. Special exhibits are Victor spring hinges with shallow boxes and self-contained silent check cylinders. A special super-type of this class of hinge is shown, specially designed to suit metal doors of half a ton in weight, also working models of window gearing and fanlight openers, panic bolts and casement fittings. There are also door furniture and locks, sash balances, metal casements, weather bars, passable hopper cheeks, and reversible windows.

*

THOMAS POTTERTON (HEATING ENGINEERS), LTD. (Row C, 37), exhibit a selection of the standardized types of Victor gas boilers, and give working examples of systems supplying hot water for general domestic use, including (a) automatic storage water heaters with insulated cylinders and "snap-action" thermostatic control; (b) automatic storage heaters with adjustable thermostat for heat maintenance to operate secondary circulation to towel-dryers and remote points. A working example of central heating by gas with circulating radiators thermostatically controlled is in operation. Patent thermostats of both the positive and by-pass type are on view, two new designs being exhibited for the automatic control of gas supply in heating water for domestic and trade purposes. Also air thermostats for maintaining temperatures for various purposes. Other exhibits include an example of combined heating and domestic hot-water supply, heating both through direct and indirect systems from coke boilers, operating the full duty from one fire, with an adjunct in the form of a gas boiler for domestic supply during the summer months. Hot-water equipment for sports pavilions and bungalows and other single-story buildings with circulating towel-dryers at a low level.

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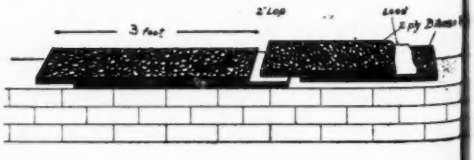
VIGERS, SONS & CO., LTD. (Gal. 16), show specimens of parquet floorings in various patterns, from the ordinary herring-bone to the most ornate designs. Flooring blocks of various woods, and strip floorings in maple, pitch pine and oak are also exhibited. Another speciality of this firm is oak panelling, a specimen panel of which is on view.

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UNITED WATERPROOFERS, LTD. (Row K, 193) are manufacturers of Supex waterproofing solution for use as a gauging liquid for cement rendering above and below ground against water pressure. Supex can be applied on walls externally by spray, in which case it is colourless in effect and is claimed not in any way to interfere with the texture of the surface to which it is applied. Roofing preparations manufactured from pure mineral gums: these are supplied in liquid and plastic form and are also exhibited. It is claimed that they are not affected by atmospheric conditions, do not dry out or crack, and remain almost indefinitely in a tough, leather-like coating. Elastikote, a super paint made from elastic mineral gums and non-volatile oils: the paint is claimed to be impervious to acids, fumes, brine, etc., and to offer an insulating resistance up to well over 1,000 volts. B. & P. enamel, manufactured from Chinese T'ung oil. Watco for treating concrete and cement floors to prevent dusting and for preserving and hardening wood; also Hope Products —Hope Wood Worm Destroyer, Hope Death Watch Beetle Destroyer and Hope White Ant Destroyer. All manufactured from formulæ approved by the late Professor Maxwell Lefroy.

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On Stand 44, Gallery, FIELD AND PALMER exhibit Fipaled dampcourse, which is lead-insulated between two layers of two-ply bitumen sheeting, sealed to same with coatings of pure bitumen, and is made in plates 36 ins. long to any width required to fit brickwork. As shown on sketch the lead is left exposed two inches on each end of each plate but sealed with the bitumen mastic to the two-ply bitumen sheeting; at one end to the bottom sheeting layer and at other end to the top layer of ditto. This gives a two-inch lap to every plate when being laid, forming a continuous lead dampcourse insulated and protected top and bottom with the bitumen sheeting layers. The lead is of best quality, rolled, and the minimum weight of same is guaranteed six ounces. Thicker lead can be used if specified. The bitumen felt layers are their own manufacture and the bitumen used in making same is guaranteed to be the highest grade and non-perishable. The surface is well gritted with coarse sharp sand so that it forms a perfect grip to the walls built upon same. Being made in plates and not in rolls it is made always to one standard. It is as easily and as quickly laid as rolled dampcourse. There is, it is claimed, no cracking in cold weather and no squeezing out when exposed to heat and to weight of building.



LIBRARY ARCHITECTURE

YESTERDAY, the second day of the fifty-third annual conference of the Library Association, now in progress at Cambridge, a special session was devoted to the consideration of the architecture of large libraries.

Three papers were read: on "The New Cambridge University Library," "The New Book Stacks at the British Museum," and "The New Reference Library at Manchester," by Mr. Ansell, M.A., F.L.A. (Assistant Under-Librarian, University Library, Cambridge), Sir Richard Allison, C.B.E., F.R.I.B.A. (Chief Architect, H.M. Office of Works), and Mr. E. Vincent Harris, F.R.I.B.A. (Architect for the Manchester Library), respectively.

Following are summaries of two of the above-mentioned papers. That by Mr. Vincent Harris described, in detail, the accommodation to be provided at the Manchester Library.

The New Cambridge University Library

The site of the new University Library was a space of 7½ acres behind the Memorial Building of Clare College. The building itself would be twice the size of the present one, and was expressly planned to allow for expansion.

Sir Giles Gilbert Scott's design combined simplicity with dignity. It was oblong in shape, divided into two courts, and had wings extending from the façade. On the first or main floor the catalogue room, dividing the two courts, would be the centre from which readers would radiate to whatever department they required. The general reading room, capable of seating over 200 persons, would open out of the far end of the catalogue room; the periodicals department would occupy the entire block to the south of the latter; the special reading room, with seating capacity for fifty, would be in the southern wing, adjacent to rooms for manuscripts, incunables and other reserved books; the map and music departments would be in the corresponding north wing, and so on. Galleries for showcases and old bookcases from the present library would be on the main floor.

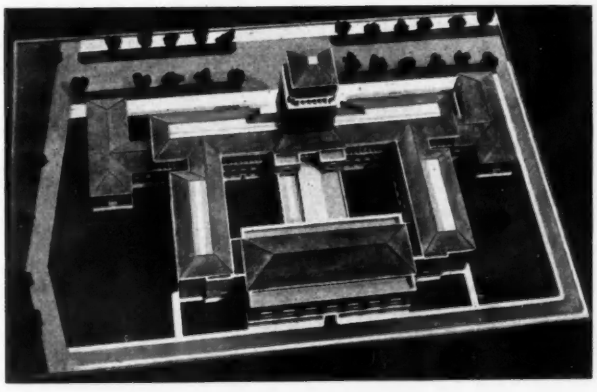
Many of the administrative rooms, such as those for unpacking, binding, printing and the like, would be located together on the ground floor, thus minimising the staff traffic through public passages and rooms. The bulk of the rest of the building, including the tower, would consist entirely of bookstacks; but there would be chairs and tables for about fifty readers amongst these—for the University Library had always allowed readers access to the shelves. There would be lifts for passengers as well as books, and all the blocks and wings could be isolated in case of need. It was estimated that the £500,000 available would cover the cost of the building, as well as of the extra establishment necessary.

The New Book Stacks at the British Museum

In an old-established institution such as the British Museum Library, the original planning of the structure in relation to the surrounding main Museum building, as also the catalogue system and service routine, impose restrictions on the architect in considering possibilities of improvement. After briefly describing the present arrangements, the author explained the Office of Works' scheme for rebuilding the Stack Rooms, as recommended by the Royal Commission on National Galleries and Museums, to obtain improved conditions and more economical use of space. The proposal is to provide greatly increased facilities for book storage in a structure, designed on modern fire-resisting lines, to be erected in sections, possibly during the next fifteen years or so. The order in which the different sections are to be dealt with has received careful consideration, as temporary transfer of portions of the library is necessary to set free in rotation the sections for rebuilding.

After comparison of different systems it has been decided to abandon the present method of top lighting and open grid floors, and adopt lightly-constructed opaque floors or decks; also side windows supplemented by a complete system of artificial light. Mechanical ventilation and heating will be provided, probably on a system involving distribution and conditioning of warmed air.

The space available has been planned to accommodate a maximum number of racks with attendants' rooms, lifts and staircases being arranged in convenient positions. Book racks will be of metal, finished with an enamel surface. They will be of the rolling type in batteries, each rack being double-faced and installed for rolling endwise from its normal position out into the gangway for placing or withdrawing books. Considerable attention has been given to the problem of providing for books of varying width, with a view to ensuring the utmost use of space available, but the methods contemplated will call for further consideration in detail. The rollers on which the racks will be suspended will run on the lower flanges of the steel joists forming the floor or deck construction in order to economize in height.



A photograph of the model of Cambridge University Library, taken from above, to show the plan. The architect is Sir Giles Gilbert Scott.

LAW REPORT

RIGHT-OF-WAY DISPUTE

Wood v. *Drughorn. Chancery Division. Before Mr. Justice Clauson*

THIS dispute centred round an alleged right of way to certain cottages at Ifield, Sussex, the plaintiffs being the Misses Wood, of Church Cottage, and the defendant Sir John F. Drughorn, Bart., of Ifield Court. Plaintiffs sought a declaration that a right of way existed along a back lane from the Plough Inn to the back of their cottage, Church Cottage, and an injunction against defendant restraining certain obstructions and damages.

Plaintiffs admitted that the property in the soil of the lane was vested in the defendant, but they said there was an ancient user of the roadway by cottagers, who used it for carting coal, etc. The back gates of a number of cottages abutted on the lane and plaintiffs complained that the defendant had placed a fencing along it, allowing gates to such of the occupants as asked his permission.

Defendant alleged that there was only a permissive user of the lane. If there was a right, it was such as was suitable to the cottages at the time of its grant. In any case it was restricted to foot passengers.

His lordship, after hearing a mass of evidence, said he was satisfied of the cottagers' user of the lane for more than half a century, for all purposes of access. It could not matter to the defendant if carts used the lane or a

motor or two, as a motor did not make it a public way. Church Cottage was formerly two cottages, and his lordship thought that the earlier occupants of the two cottages used the back lane. It was a serious matter to deprive defendants of this right of access, and his lordship added that it was most unfortunate where a right of this kind had been enjoyed for a long time that a comparative newcomer should act as the defendant had done and take the law into his own hands. His lordship granted the plaintiffs the declaration they sought and the injunction and £5 damages, and ordered the defendant to pay High Court costs.

SOCIETIES AND INSTITUTIONS

TRADES TRAINING SCHOOLS PRIZES

IN connection with the exhibits by craftsmen of the different Training Schools in London which are being shown at the Building Exhibition at Olympia, prizes have been given by the undermentioned: £20 by the Worshipful Company of Pewterers; £5 by the Armourers and Braziers' Company; £20 by Mr. H. Greville Montgomery, Building Trades Exhibition.

The prizes were allocated as follows: £10, Brixton School of Building; £8, Trades Training Schools; £7, Northern Polytechnic; £5, Southend-on-Sea Technical Institute; £5, Borough Polytechnic Institute; £5, Willesden Polytechnic Day School of Building; £3, Hammersmith School of Arts and Crafts; £2, Tottenham Polytechnic.

A supplementary prize of £5 was given by Mr. Gilbert Christy, Master of the Armourers and Braziers' Company, for the exhibit of the Army Vocational Training Centre, Aldershot, especially in regard to plumbing.

The assessors were: Messrs. F. Adams Smith, F.R.I.B.A., Trades Training Schools; H. Justus Eck, M.A., M.I.E.E., Pewterers' Company; G. J. Newson, A.R.S.I., Tylers' and Bricklayers' Company; George W. Eyles, President, Incorporated Clerks of Works Association; Gilbert Christy, Master of the Armourers' and Braziers' Company, and E. A. Burgess (Joinery Section).

BRITISH GLASS CONVENTION

Mr. Walter Chance, J.P., in his presidential address at the second British Glass Convention, held at Buxton last week, discussed the problem of selling glass and other goods of British manufacture in the oversea markets. He said that many British manufacturers, including not a few in the glass trade, were suffering from an inferiority complex about exports, and were relinquishing effort. Under normal trade conditions there was a potential outlet for British goods not yet sold abroad, but we must face the fact that we had got to compete at equal figures, except in so far as we enjoyed a preference in British oversea markets.

We must, he pointed out, either reduce our prices or educate the public abroad to demand a better quality. It was true that of late years British firms had learned to study much more carefully the idiosyncrasies of oversea customers, but in some respects they had still much to learn.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

26298. Abingdon, W. Framework for theatre, etc., scenery. September 3.

26182. Aquirre, J. M. Concrete, etc., piles. September 2.

27183. Aquirre, J. M. Reinforcement of soil for foundation of buildings, etc. September 2.

ABSTRACT PUBLISHED

332294. Arlidge, C. Building blocks.

TRADE NOTES

Mr. A. W. Halliwell has resigned from the directorate of Messrs. Phillips and Sons (Chiswick), Ltd., manufacturing electrical and mechanical engineers and contractors.

*

Messrs. Regants, Ltd., on account of increased demand, have opened new showrooms at 53 Great Marlborough Street, W.1 (telephone number: Gerrard 7348). This firm, apart from their "Corrected Glass" fittings, have a good representative display of brackets and pendants of the latest panel type. Architects are cordially invited to visit the showrooms, or to send their specified requirements.

*

In order to be in a position to give more complete service to cement users, the British Portland Cement Association, Ltd., recently opened two new branch offices at 15 Queen Street, Exeter, and 9–14 Exchange Buildings, Upper Hinton Road, Bournemouth. In addition to the head office at 20 Dartmouth Street, S.W.1, and the two offices already referred to, the association is also represented in Birmingham, Cardiff, Dublin, Edinburgh, Leeds and Manchester.

Following is a list of the general contractors and some of the sub-contractors for Staveley Hollingwood Council School, Staveley, near Chesterfield, illustrated on pages 449–451. General contractors, Evans Bros. & Co. Sub-contractors: Granwood Flooring Co., patent flooring; G. N. Haden and Sons, Ltd., heating; Jerram & Co., electric wiring.

COMPETITIONS OPEN

September 30.—The Isle of Man Education Authority invited architects to submit competitive designs for a new Grammar School at Ramsey, Isle of Man. Assessor, T. Taliesin Rees, F.R.I.B.A. Premiums: £250, £150 and £75. Particulars, etc., were obtainable from T. R. Lewin, Clerk of the Authority, Education Office, Strand Street, Douglas, until July 1. Deposit £1 1s. Latest date for submission of designs: September 30.

October 1.—The Burton-on-Trent Local Education Authority invited architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor: H. T. Buckland, F.R.I.B.A. Premiums: £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs: October 1.

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invites architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor: A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs: October 20.

October 30.—The General Building Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums: £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs: October 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office,

Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young Communist Square), and will contain a mass musical stage and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, SEPTEMBER 24

R.I.B.A., 9 Conduit Street, W.1. Exhibition, in the Galleries, of drawings submitted in competition for the Archibald Dawnay Scholarship (10 a.m. to 7 p.m.; Saturdays, 2 p.m.). Until September 30. **10 a.m.**

INTERNATIONAL BUILDING TRADES EXHIBITION, Olympia. Until October 1.

LIBRARY ASSOCIATION. Fifty-third Annual Conference, to be held at Cambridge. Until September 27.

FRIDAY, SEPTEMBER 26

NATIONAL SMOKE ABATEMENT SOCIETY. Annual Conference, to be held at Leicester until September 28. During the conference the following papers will be read: "Fuel Research and Smoke Abatement," by Dr. Margaret Fishenden; "The Smoke Problem in Sheffield," by F. J. Bailey and E. C. Evans; "Smoke and the Weather," by a meteorological expert; and "The Smoke Nuisance as the Airman Sees It."

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. Dinner and Dance to be held at the Quadrant Restaurant, Regent Street, W. Tickets, 7s. 6d.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Yorkshire District meeting, to be held at Hipperholme.

SATURDAY, SEPTEMBER 27

Sunrise, 6.53 a.m. Sunset, 6.49 p.m.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Church Bell Foundry of Mears and Stainbank, 32-34 Whitechapel Road, E.1. **11.30 a.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. "Continental Glass," 12 noon. "English Domestic Glass." 3 p.m. Both lectures by Miss B. Goldsmid. **12 noon.**

MONDAY, SEPTEMBER 29

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Sanitary Inspectors' Course. **6 p.m.**

TUESDAY, SEPTEMBER 30

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. London and Home Counties Branch. "The Making of a Cathedral—Liverpool." By E. W. Harvey-Piper. (Lantern Illustrations.) **7 p.m.**

ISLE OF MAN GRAMMAR SCHOOL COMPETITION. Latest date for submission of designs.

WEDNESDAY, OCTOBER 1

BURTON-ON-TRENT SCHOOL COMPETITION. Latest date for submission of designs.

FRIDAY, OCTOBER 3

TOWN PLANNING INSTITUTE. Twelfth Annual Country Meeting, to be held at Leicester. Until October 5.

SATURDAY, OCTOBER 4

Sunrise, 7.4 a.m. Sunset, 6.53 p.m.

MONDAY, OCTOBER 6

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Commencement of Winter Term.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Motor Coach Excursion: Special Visit to Greenhithe Cement Works. Leave Portland House, Tothill Street, Westminster, S.W.1, at 1.45 p.m. Tickets obtainable from the Secretary of the Society. **1.45 p.m.**

WELSH SCHOOL OF ARCHITECTURE, Technical College, Cardiff. Commencement of School Year.

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Smoke Inspectors' Course. **6 p.m.**

TUESDAY, OCTOBER 7

R.I.B.A., 9 Conduit Street, W.1. Closing date for applications for admission to the Intermediate Examination.

THURSDAY, OCTOBER 9

C.P.R.E. Third Annual Conference, to be held at Welwyn Garden City. Until October 11. Among the papers to be read are the following: "The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields." By Sir Lawrence Chubb. "Town and Regional Planning in their Relation to the Objects of the C.P.R.E." By Sir Theodore Chambers, K.B.E., F.S.I. "Education and Citizenship in their Relation to the Safeguarding of the Countryside, etc.," and "Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds." Each paper will be open to discussion.

FRIDAY, OCTOBER 10

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Sessional Meeting to be held at the Guildhall, Nottingham. Welcome by Councillor E. H. Lee, Chairman of the Health Committee, followed by tea, 4 p.m. A Discussion will take place on "River Pollution," to be opened by Alderman A. R. Atkey, J.P. 4.30 p.m. Chairman: Charles Porter, M.D., B.SC., etc. **4 p.m.**

SATURDAY, OCTOBER 11

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Meet at the Guildhall, Nottingham, at 9.15 a.m. for visits to the Factory and Welfare Department of Boots Pure Drug Company, Ltd. Followed by an inspection of the New Council House at 11.30 a.m. **9.15 a.m.**

THURSDAY, OCTOBER 16

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to Cement Marketing Company's Laboratory, Portland House, Tothill Street, Westminster, S.W.1. (Party limited to 30.) **7 p.m.**

MONDAY, OCTOBER 20

BIRMINGHAM WELFARE CENTRES COMPETITION. Latest date for submission of designs.

THURSDAY, OCTOBER 23

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by T. J. Clark, A.I.STRUCT.E., of the British Portland Cement Association. **7.30 p.m.**

SATURDAY, OCTOBER 25

Sunrise, 6.40 a.m. Sunset, 4.48 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the works of Messrs. Johnson, Dartford. **2 p.m.**

TUESDAY, OCTOBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "English Ironwork." By Edward Yates. **7 p.m.**

WEDNESDAY, NOVEMBER 12

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

THURSDAY, NOVEMBER 13

ROYAL ACADEMY, Burlington House, W.1. "Modern Pigments: Their Proper Selection and Use." By A. P. Laurie, D.SC. **4 p.m.**

FRIDAY, NOVEMBER 14

ROYAL ACADEMY, Burlington House, W.1. "Painting Media: Oils, Varnishes and Tempera." By A. P. Laurie, D.SC. **4 p.m.**

SATURDAY, NOVEMBER 15

Sunrise, 7.16 a.m. Sunset, 4.12 p.m.

MONDAY, NOVEMBER 17

ROYAL ACADEMY, Burlington House, W.1. "Methods of Wall Paintings." By A. P. Laurie, D.SC. **4 p.m.**

TUESDAY, NOVEMBER 18

ROYAL ACADEMY, Burlington House, W.1. "The Theory of Colour and its Application to Painting." By A. P. Laurie, D.SC. **4 p.m.**

WEDNESDAY, NOVEMBER 19

ROYAL ACADEMY, Burlington House, W.1. "Early Methods of Oil Painting." By A. P. Laurie, D.SC. **4 p.m.**

FRIDAY, NOVEMBER 21

R.I.B.A., 9 Conduit Street, W.1. Intermediate Examination. Until November 27.

SATURDAY, NOVEMBER 22

Sunrise, 7.28 a.m. Sunset, 4.3 p.m.

TUESDAY, NOVEMBER 25

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, W.1. "The Construction of a Great Exhibition." By W. T. Bowman, O.B.E., F.I.A.A., M.I.STRUCT.E. Chairman: Sir William Crawford, K.B.E. **7 p.m.**

THURSDAY, NOVEMBER 27

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. At the Showroom of W. T. Lamb and Sons, 43 Shoe Lane, E.C.4. "Bricks and Tiles." By E. Valser. **7 p.m.**

FRIDAY, NOVEMBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, W.1. Fifth annual banquet to be held at the Stationers' Hall, City, E.C.

SATURDAY, NOVEMBER 29

Sunrise, 7.40 a.m. Sunset, 3.56 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the Works of Messrs. W. T. Lamb and Sons, Worcester Park. **2 p.m.**

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_1	Atherstone	Mid. Counties	1 5½	1 1
B_1	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_2	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* NAVVY, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.
RETURN, fill, and ram, ordinary earth, per yd. £0 1 6
SPREAD and level, including wheeling, per yd. 0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6
TRIMMING earth to slopes, per yd. sup. 0 0 6
HACKING up old grano. or similar paving, per yd. sup. . . . 0 1 3
PLANKING to excavations, per ft. sup. 0 0 5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.
IF left in, add to above prices, per ft. cube 0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1
DO. 6 in. thick, per yd. sup. . . 0 2 10
PUDDLING, per yd. cube 1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6
DO. 6-2-1, per yd. cube . . . 1 12 6
DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.
LIAS-LIME CONCRETE, per yd. cube . £1 14 0
BREEZE CONCRETE, per yd. cube . 1 7 0
DO. in lintels, etc., per ft. cube . 0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9
FINE concrete benching to bottom of manholes, per ft. cube . . . 0 3 0
FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* BRICKLAYER, 1*s.* 8½*d. per hour;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0

Portland cement and sand, see "Excavator" above.

Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9¼ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each .	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra .	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra . .	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra .	0	0	10
WEATHER pointing, do. do. . .	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup. . . .	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup. . . .	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each . .	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup. . .	0	11	0
SLATE DAMP COURSE, per ft. sup. .	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. . .	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. . .	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each .	0	0	3

MASON

MASON, 1*s.* 8½*d. per hour;* DO. *fixer,* 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone:

Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0

Usual trade extras for large blocks.

York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup. . .	0	4	0
SUNK FACE, per ft. sup. . . .	0	3	9
DO. circular, per ft. sup. . .	0	4	10
JOINTS, arch, per ft. sup. . .	0	2	6
DO. sunk, per ft. sup. . . .	0	2	7
DO. DO. circular, per ft. sup. .	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run . . .	0	1	1
DO. circular, do., per ft. run .	0	1	4
HALF SAWING, per ft. sup. . .	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed .	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup. . .	0	1	6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour;* TILER, 1*s.* 8½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

	Med. Grey	*Med. Green*
Portmadoc Ladies	£14 0 0	
Countess	23 0 0	
Duchess	32 10 0	
Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3
Green Randoms, per ton	8 3 9	
Grey-green do., per ton	7 3 9	
Green peggies, 12 in. to 8 in. long, per ton	5 13 9	

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2

Cement and sand, see "Excavator," etc., above.

Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	*Med. Green*
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms	6 7 0	
Grey-green do.	5 9 0	
Green peggies, 12 in. to 8 in. long	4 13 6	

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.			
FIXING lead soakers, per dozen . .	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square . . .	0	10	0
LABOUR only in laying slates, but including nails, per square . .	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour;* JOINER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube . .	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube . . .	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd. .	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq. .	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run .	0	0	4½
DO. 9 in. wide and over, per ft. sup. .	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-EDGED springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1½ in. thick, per yd. sup.	0	12	0
Maple 1½ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1½ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1½ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1½ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1½ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
To DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1s. 8½d. *per hour* ; MATE, *do.*, 1s. 3½d. *per hour* ; ERECTOR, 1s. 8½d. *per hour* ; FITTER, 1s. 8½d. *per hour* ; LABOURER, 1s. 3½d. *per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1s. 9d. *per hour* ; MATE OR LABOURER, 1s. 4d. *per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb.*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1s. 11½d. *per hour* ; LABOURER, 1s. 3½d. *per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1s. 7½d. *per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1s. 6d. to 2s. per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½d. to 8d. per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1s. 7½d. *per hour* ; LABOURER, 1s. 3½d. *per hour* ; FRENCH POLISHER, 1s. 8½d. *per hour* ; PAPERHANGER, 1s. 7½d. *per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.
The measured work price is on the same basis . . . per ft. sup. £0 0 2½

FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. from 3d. to	0	0	6
Plaster-board, per yd. sup. from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

1 4
1 1

span,

3 0
per ft.

GER

s. 3½d.
hour;

0 9
4 6
4 9
4 7
10 6
15 0

2 0
3 6
0 4½
2 0
15 6
15 6
2 6
16 0
10 0
0 3
0 6

0 9
0 7

0 9
0 8
1 0

3 8
5 6
1 0
0 6

1 7
1 10
2 4
9 0

3 0

1 2

0 11

0 2½

0 6

1 7

2 3

2 3
3 3

4 0
5 0

15 0
0 0

0 0
0 0

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6 6

1 6
1 9

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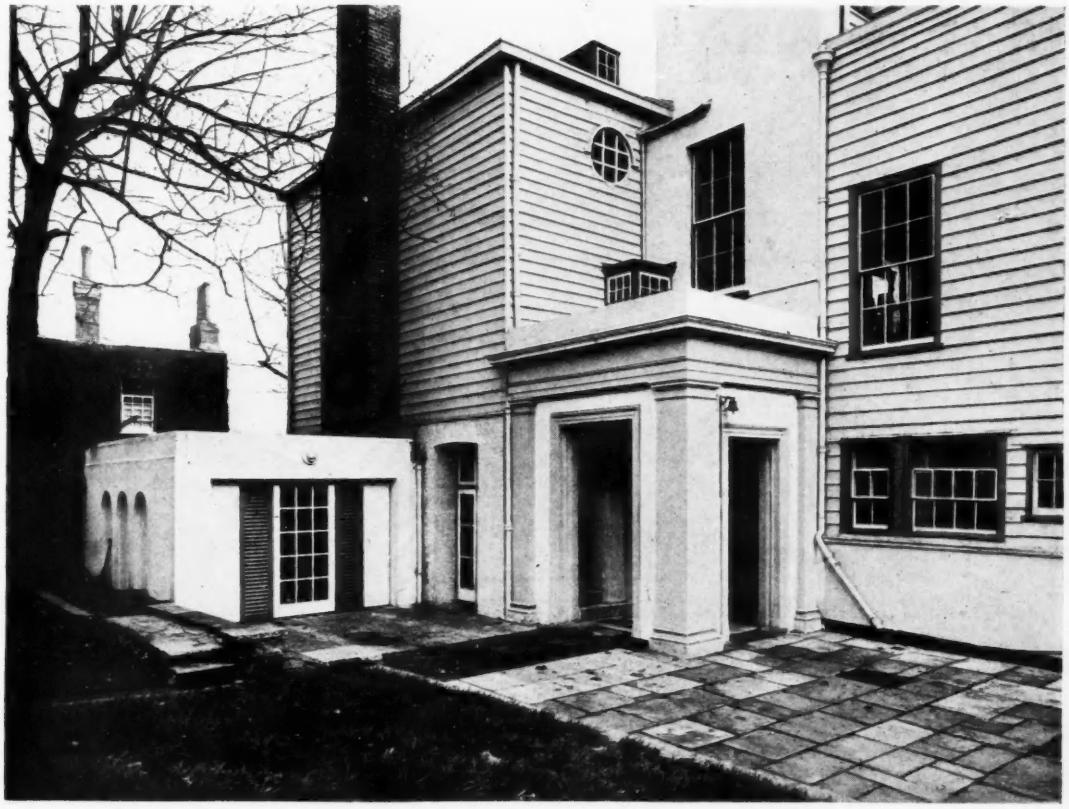
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¼ in.
A. A. B.
d. d. d.
3½ 7 6
3 7 6

0½ 10 —
6 — —
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— — —

720.5 v. 72 pt. 2

SCALE DETAILS:
A WEEKLY SERIES



GARAGE AT ROMNEY'S HOUSE, HAMPSTEAD, N.W.

For and By

CLOUGH WILLIAMS-ELLIS

MR. CLOUGH WILLIAMS-ELLIS has recently added this garage to his own house in Hampstead, the eighteenth-century home and studio of Romney the painter, who immortalized Emma, Lady Hamilton. The design of the addition was given special consideration, with the result that it seems to "belong" to the rest of the house, and quietly takes its place in the general grouping and composition.

As will be seen from the drawing overleaf, the doors are in five leaves —opening on sliding gear—and present, when closed, a well-proportioned window, flanked by louvred shutters and a plain wall. They are enclosed in a bold opening, recessed in the end of the garage and surmounted by a concrete lintel.

The flank wall has been given considerable liveliness by the use of three arched recesses. The addition is rendered in white cement, and the joisted and boarded roof is covered with asphalt.

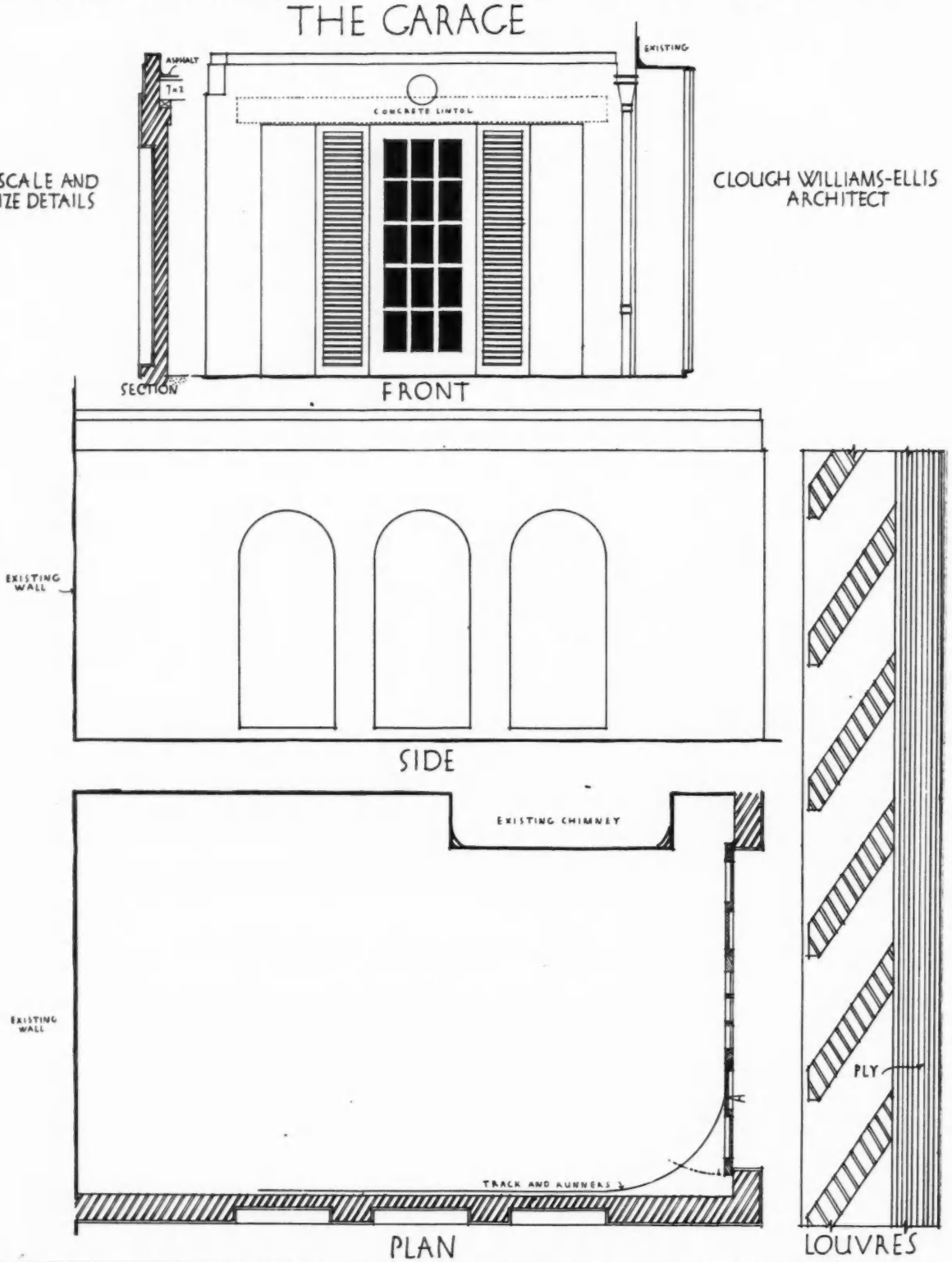
The drawing may be read with architects' scales (¼"; & 6" = 1 ft.)

ROMNEY'S HOUSE HAMPSTEAD LONDON

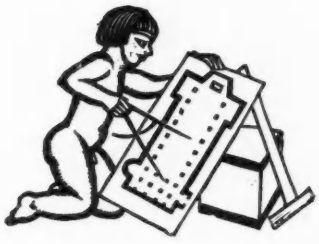
THE GARAGE

QUARTER SCALE AND HALF FULL SIZE DETAILS

CLOUGH WILLIAMS-ELLIS ARCHITECT



THE ARCHITECTS' JOURNAL



WEDNESDAY, OCTOBER 1, 1930

TOWN RE-PLANNING

The Architects' Golden Opportunity

The whole world, without art and dress,
Would be but one great wilderness,
And mankind but a savage herd,
For all that nature has conferr'd.

—BUTLER

HOW strange it is that town planning as we know it today is concerned with everything that is not a town!

Look round about you anywhere in England to see where town planning has modified the growth of urbanism and you will find several large villages, and one town—Welwyn. Then ask how it comes about that town planning, professedly the science of urbanism, has been denied its province and kept lingering round the hedgerows. The answer cannot be confined to a sentence.

It takes its first beginning in a revolt from urbanism and all that the nineteenth century made of it. It was a denial of the principles of order and symmetry, because these principles had already degenerated in the towns of the industrial age into uniformity and dull repetition; so that a new movement that would revitalize the housing of the masses had to adopt a new principle of growth. Hence it came about that town planning came to stand for suburb planning, adopting principles gathered from a close examination of English village formations and cottage architecture.

Letchworth itself has no definite, no cohesive plan. Port Sunlight has none. Very few of the early efforts of town planners had any regard for the life of towns, prolonged into the night, made attractive with light, and dignified with fine, severe buildings set on a monumental plan. They were charming and quaint, and it is no disparagement to say so when one compares their setting, among trees and hedgerows, with the barren geometry of the old streets.

Looking now at the housing schemes of the pre-war period one finds how the principles of symmetry and order have reasserted themselves in one great estate after another, sometimes indeed to little effect, since a cottage is no unit for grandiose planning, and the lingering faith of the pioneers prohibits greater continuity than can be got from half a dozen such units run together.

Yet these estates are of such magnitude and have been so created at one blow that no irregular, village-like plan could hope to extend itself over their acreage, and the semblance of geometric order has crept in, leading gradually to the idea of urbanism, of streets, shops, architecture, and firm cohesive planning.

Look from this to Welwyn, the first attempt to build a town. From this again to the bad old towns; to re-plan them and do for them what Letchworth and Hampstead have done for the suburbs.

The day is indeed at hand when town planning must come into its own again. But with what weapons is it to attack its most formidable opponent? With those rustic bill-hooks that served it well in the fields? Surely not. Yet there must be weapons strong, well forged, and equal to a struggle against great interests, and for no less an ideal than the re-creation of the entire urban system of this country.

It is indeed the opportunity for which architects have been long waiting. While town planning concerned itself with zoning, regional distribution and roads, it was its own science. When now it will return to the town to take on work the nature of which is already foreshadowed in the re-planning of Leeds, Hull and other towns, then it must join forces with architects and become the noblest of all the arts.



THE PHŒNIX THEATRE:
THE CHARING CROSS ROAD FACADE

This new London theatre seats 1,200 persons. Messrs. Bertie Crewe and Cecil Masey are the architects, while Sir Giles Gilbert Scott, R.A., designed the Charing Cross Road front, illustrated above. The interior decorations are by M. Theodore Komisarjevsky, and the decorative paintings by Vladimir Polunin.

NEWS & TOPICS

ARCHITECTURAL EXHIBITION IN LIVERPOOL

ONCE again at the Autumn Exhibition at Liverpool there is a room in the main circulation devoted to architecture, hung by a committee appointed by the Liverpool Architectural Society. And a very mixed bag it is. Two cathedrals, half a dozen churches, a couple of factories, eight domestic buildings, four or five banks and offices and a handful of pubs, besides a host of miscellaneous stuff. Among the obviously "invited" work there are designs by Sir Edwin Lutyens, Mr. Guy Dawber, Sir Reginald Blomfield, Sir Giles Gilbert Scott and Mr. Walter Tapper. Most of the work exhibited by Sir Edwin Lutyens is already well known, but especial interest will be taken in the magnificent perspective drawing in Mr. Farey's best manner of the design for the new Roman Catholic Cathedral, now shown publicly for the first time. For the other Cathedral Sir Giles Gilbert Scott exhibits two line drawings which are perfect examples of meticulously accurate draughtsmanship.

★

There is a particularly delightful bank by Messrs. Willink and Dod, with skilfully handled brickwork patterns, and some very scholarly domestic work in the Georgian manner, notably a house at Wimbledon by Messrs. Shepheard and Bower, another at Noctorum (a charming name) by Messrs. Quiggin and Gee, and several views of Corporation cottages and flats by Mr. Lawrence Keay. Among the photographs of work by Messrs. Budden and Marshall there is one of a fireplace in a house at Burton which is quite a masterpiece of restraint and good proportioning.

★

The modernist movement seems to be making little headway in Liverpool, which is rather surprising, as they are inclined to pride themselves there on their progressive spirit. Certainly there is little in this exhibition to flutter any dovecots. There is a modernist flavour about the view in the courtyard of Messrs. Quiggin and Gee's Chevasse Memorial Hall, but one is not quite sure whether it is deliberate or not. Rather more than a hint of it is also apparent in some public-house interiors by Messrs. Harold E. Davies and Son, but it is most noticeable in the designs by Mr. Francis X. Velarde. There is nothing wild and woolly about any of his work, but throughout it all there is evidence of a fresh and original outlook. His "Three-dimensional Sign for Hillside" is really quite ingenious, and his sketch for a Church of Our Lady of Lourdes is one of the most interesting drawings in the Exhibition. Thoroughly modern in treatment, there is yet a suspicion of almost Oriental romanticism in it, especially in the domed tower and the double curved pediment over the narthex.

★

There is, of course, some dull stuff; that is inevitable, but it serves to show up the excellence of the more interesting work. One Victorian drawing of a castle seems to have strayed into the architectural room by mistake, and looks curiously forlorn. Only one model is exhibited, that of Mr. Grey Wornum's Haig Memorial Homes, which though very well made, is so anæmic in colouring that you could hardly believe it to bear any relation to the building itself—recently completed—which is altogether charming with its fine rich brickwork and roof-tiling.

MECHANICAL PRODUCTION

The rationalization of the building industry is likely to add still further to the total of its unemployed. High wages have brought new and more mechanistic methods into the industry, but despite these the employers are seeking to reduce wages, in face of a general slackening of trade. The negotiations will be prolonged and complicated; the more so when the full import of rationalization is understood. The last twenty-five years have seen a revolution in the industry, upsetting the whole system of craft grades and the nicely balanced division of labour.

AN ADVISORY BUILDING COUNCIL

The employers on their side are alive to the implications of the new mechanization of building. There is a growing feeling that the law relating to building construction, especially where it concerns steel, is in need of drastic amendment; while with this is felt the need for some correlation of the immense accumulation of new ideas, methods, and materials of building. Architecture has recognized the new age, tardily it is true. Building has followed, introducing new ways, but trying to fit them in with its ancient practice.

★

Now it is proposed to form an Advisory Building Council as a means of putting the industry into closer touch with twentieth-century methods, and of organizing the output of work and the employment of labour. What form this Council is to take is not yet decided, for the builders are only at the stage of seeking information and advice from various authorities and professional bodies.

★

Today every building is of steel or concrete: it employs either steel fitters or labourers where once it employed bricklayers. Joiners have become factory-hands or fitters. Painters may be paint-sprayers. The whole tendency is in the direction of mechanical production and away from the craft spirit which up to so recently has been the mainspring of its labour. The problem of the unskilled and semi-skilled man is to the fore, and this movement on the part of the employers will force the Unions to a new conception of their responsibilities to their members. It is very likely that the changes will be met by the amalgamation of Unions, a closer federation of building trade workers and a modification of the old lines of craft demarcation.

THE PASSING OF THE COUNTRY SEATS

That the Marquis of Tichfield is building a house in Welbeck Great Park, half a mile from Welbeck Abbey, seems to foreshadow the day when the Abbey, with its famous underground suite, its ballroom and pictures, will be closed, as other great houses up and down the land have been closed because of taxation and the death of agriculture.

★

What to do with these great houses that fall into the market is one of the standing problems of this democratic age, for their maintenance is an education in itself, outside the comprehension, as it is outside the purse, of most Councils. Yet the loss of their great contribution to the architectural story and the social structure of the race is hard to over-emphasize, and one wonders whether

there is not some method by which they may be given new leases of usefulness. Perhaps as industry tends to move into the country, a new town might be planned round one of these great places, using the mansion as a centre, the great lawn as a civic centre, and the tree-lined boundaries of the Great Park as the future circumference of its ultimate growth.

WESTMINSTER OLD AND NEW

Here is a view of Westminster of the nineties that gives one the measure of the reclamation effected by the building of the Embankment wall. Here are clusters of homely houses standing above a shelving shore of shingle, with the great bulk of the Houses of Parliament thrust out into the river. One is tempted to imagine what significance might have been added if the Embankment, instead of continuing the line of the terrace, had been given a setback that left the buildings in command of the composition as seen from the river, and not, as now, contained within the rigidity of the unbroken retaining wall.

★

One must feel grateful for the gardens that occupy the site of the old foreshore, for they do keep a feeling of open space about the Houses of Parliament. But they are bad gardens, says my inner conscience, for with high railings they shut away the river from the road; and they are not furnished to be an adjunct, a foil, and a lesser instrument of Barry's fine buildings, as are the pleasant lawns that lie about the Abbey; and one cannot enter them at one end and walk to the other end, instead of walking on the pavement, as one can along Piccadilly; and one cannot see Rodin's piece of sculpture casually, as one should be able to see it. If one is a snuffy old man who divides his time between the reading-room of a public library and the dozing space of a public bench, one can shuffle along a gravel path to a place in the sun and sit enjoying what small view of large horizons this silly little garden leaves to be enjoyed. For it is indeed, as my conscience tells me truly, a poor affair.

A PALACE PAVED WITH GOLD

I suppose one must feel gratified that American offers for paving stones taken from underground passages at Buckingham Palace have been outbid by an English firm of contractors, though I would better like to know how much more than the already expensive paving-stone of everyday use is the royal variety. The American veneration for royalty and English aristocracy is accounted a queer thing by newspaper reporters, but one has only to go to the States to realize why. There are in the States money, rich people and old families, but the idea of "privilege," the whole fairy-tale of kings and queens, and the fine flow of blue, blue blood is so far outside the ken of the free-born American that even to a paving-stone may be ascribed powers of communication.

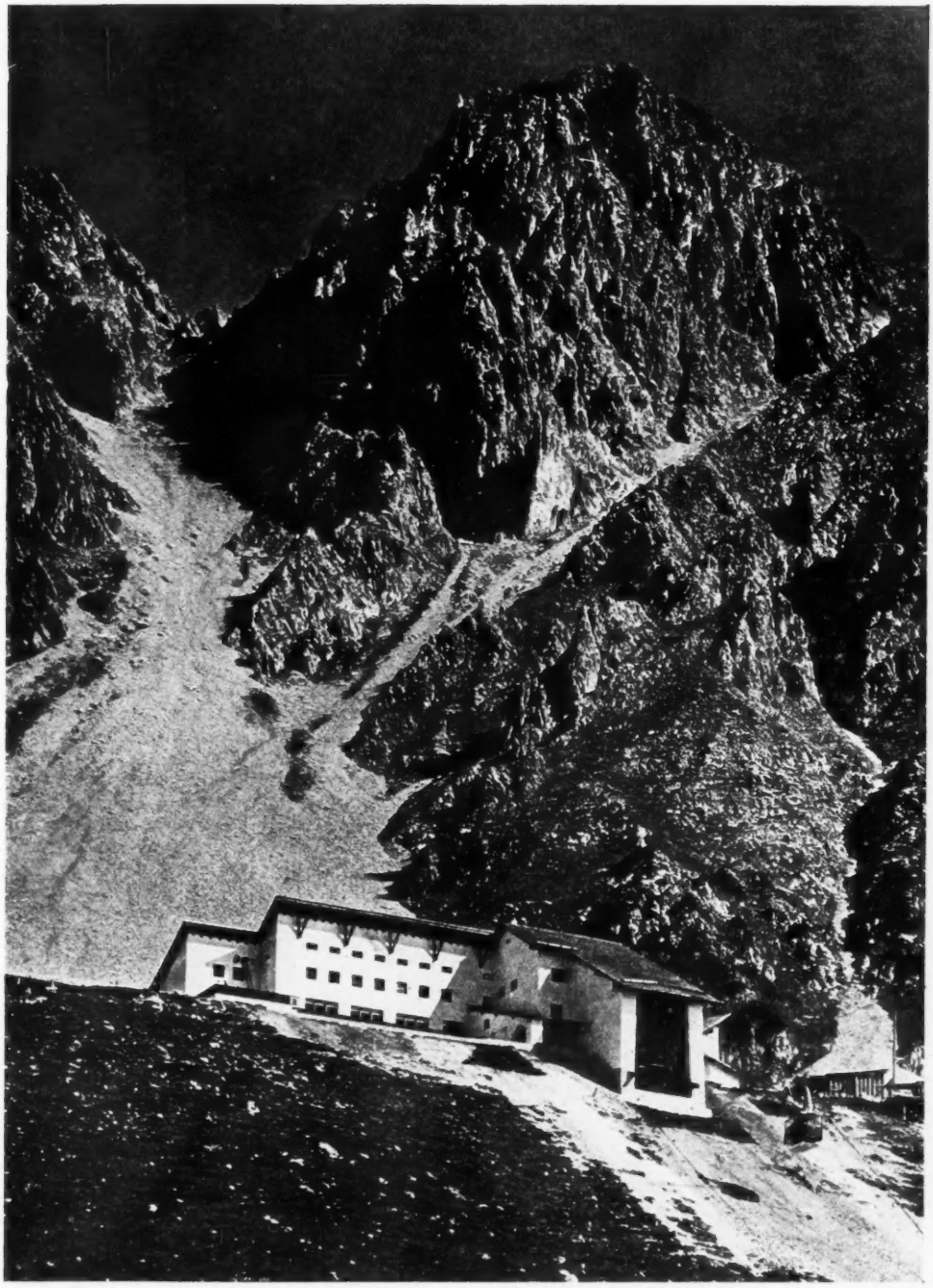
ASTRAGAL



This view of the Houses of Parliament, with the old Lambeth Quay in the foreground, is reproduced from a photograph taken towards the close of the nineteenth century. Since the laying down of the Thames Embankments by the old Metropolitan Board of Works, remarkable building progress has taken place along Millbank, where the new I.C.I. building and the framework of Thames House stand out in marked contrast to the old grey walls of Lambeth Palace, on the opposite side of the river.

THREE MOUNTAIN RAILWAY STATIONS, INNSBRUCK

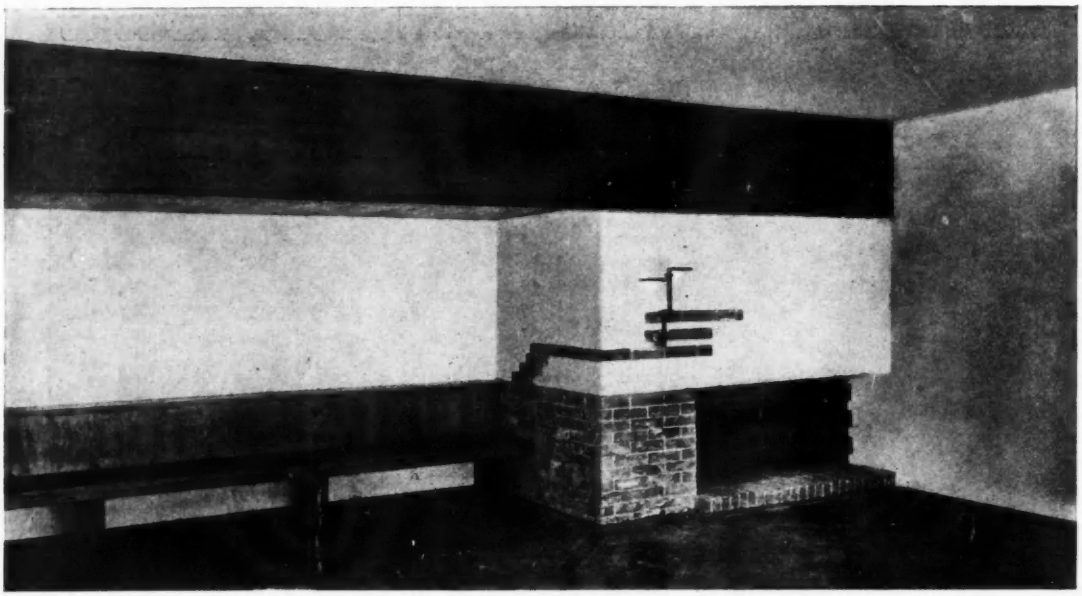
DESIGNED BY FRANZ BAUMANN



Seegrube intermediate station, 1,905 metres above sea level.

STANDING in the wide square-like Maria-Theresa Street in Innsbruck—perhaps the most beautiful street in the world—the high steep blue mountains of the Northern Chain appear so near that the world-famous "Golden Roof" at the end of the street seems to stand at their very feet. Yet it takes thirty minutes by the new northern cable railway to reach the middle wide summit known as the Hafelekar (7,120 ft. above sea level).

It would be difficult to find a sight more awe-inspiring and yet more beautiful than those ranges of mountains lifting their great bulk to almost unbelievable heights. From the top of any one of a thousand summits one can look round on a limitless sea of white-crested peaks, all of them inviting the long and thrilling climb which was the toll they demanded before they could be conquered, until,



Chimney corner in the café of the Seegrube intermediate station.

in 1928, this railway was opened. The Hungerburg, reached in ten minutes by mountain railway from Innsbruck, is the starting-point of the cable railway. This aerial railway has three stations of interesting architectural design—the valley station at the Hungerburg, the "Seegrube" intermediate station, and the "Hafelekar" altitude station.

The style of the three buildings has been evolved from two considerations, namely, fitness for their purpose and suitability to mountain land. They provide an ideal solution to the problem, for, without attempting to be "Tyrolese," they do not lack in local aspect. The architectural scheme and the inner arrangement of the buildings are the work of the young Innsbruck architect, Franz Baumann.

Previously it had generally been the custom to place before the foreigner a building erected in the conventional hotel style of architecture or else the "shelter-house" type, but in this case a break has been made from both these styles, and the foreigner is met in the language of the country, and somehow one prefers a heavily timbered ceiling or golden wood garret to a stucco ceiling; and on the wall seat one sits just as comfortably and probably more "restfully" than in a basket chair. The old media, lime and wood, white and brown, simplicity and grandeur, have been used in a new manner adapted to modern requirements, without spectacular display, but with strength and correctness of form, in such a way as to create a new style eminently suitable to mountain building.

The valley station is characterized by its simple fitting into the wooded surround and by a particularly noteworthy system of stairs. The building is compact, with white walls and plain



Exit of the Hungerburg valley station.



The Hungerburg valley station.

wide-timbered stairs. The hall has a timbered ceiling; and instead of the walled-in girders, two strong timber beams. Around are strong fixed wooden benches and a couple of heavy wooden doors.

Here begins the journey on the cable through the air, over roaring torrents and pine-clad summits, full of crevices, past forests of stooping mountain pines, until quite close are the steep rocky peaks of the Northern Chain, and the first station, Seegrube, is reached. This intermediate station is less compact than the one at Hungerburg, but is again built in white and brown mortar, brickwork and timber. Inside the building there are both large and small rooms, with windows on the sunny side only. The benches, chairs and tables are made of golden-brown wood, and are simple and strong in design. The walls are white, strikingly in contrast to the brown floor and ceiling. The fireplaces are brick-built, and the light fittings, with their iron rods, create a homely and friendly feeling, which is in accordance with Tyrolese hospitality.

From Seegrube, the funicular railway proceeds on a steep incline to the terminus station, 350 metres higher up. This has been built on the rock in one solid piece, and is well adapted to the wild ruggedness of the peak. The arrangements are in the same style, and Baumann has succeeded in carrying the bold mountain character of the outside into the interior; it is a building subdued and made for endurance, but at the same time proud and noble, and at night its lights look like stars to the passer-by in Maria-Theresa Street.

[The illustrations accompanying this article are reproduced by courtesy of *Die Bau und Werk Kunst.*]

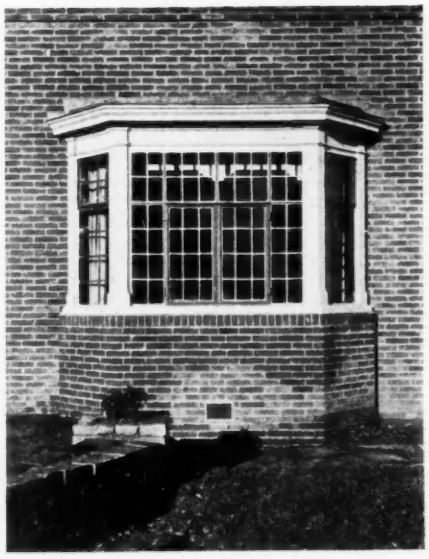


Guest room, Hafelekar mountain station.

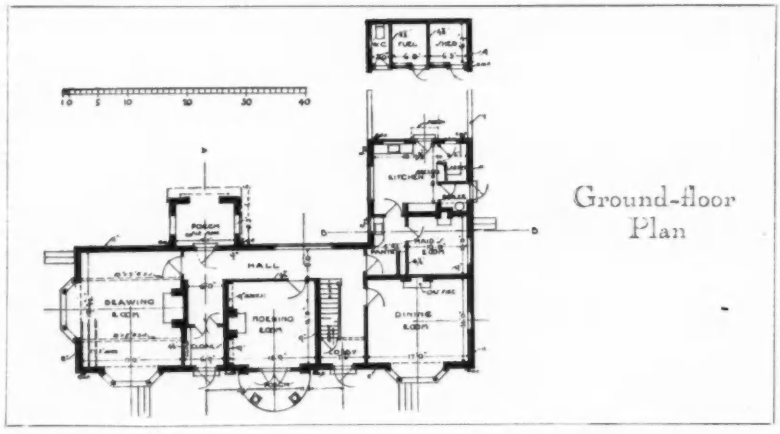
D



A view of the north front, showing the main entrance. The porch surround is of wood.



The bay window of the dining-room.



A HOUSE AT

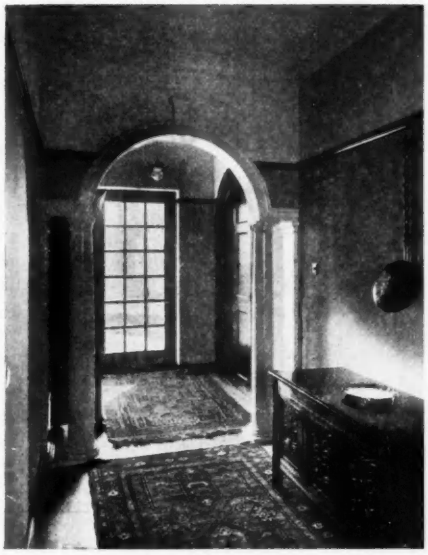
DESIGNED BY

MOUNTWOOD, Addington Road, Sanderstead, has been erected on a hilly site, offering magnificent views of the surrounding district, particularly towards the south. The walls are built of multi-coloured facing bricks, and the roof is covered with hand-made sand-faced tiles; metal casement windows are fitted.

The house is planned in the shape of a letter L, and the main entrance porch is situated on the north front. All the principal rooms are on the garden side of the house; the morning-room



The garden side, on which the principal apartments are planned, faces south and offers extensive views of the surrounding district.



The hall, looking towards the garden front.



Part view of entrance front. The walls are built of multicoloured bricks; the roof is tiled.

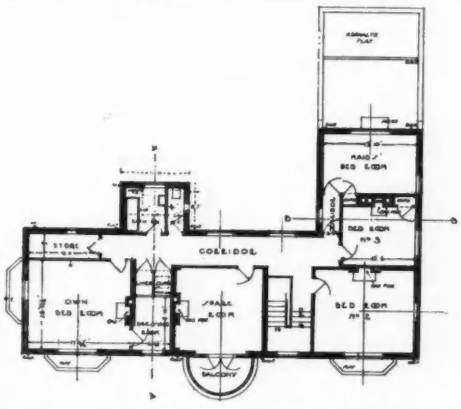
SANDERSTEAD

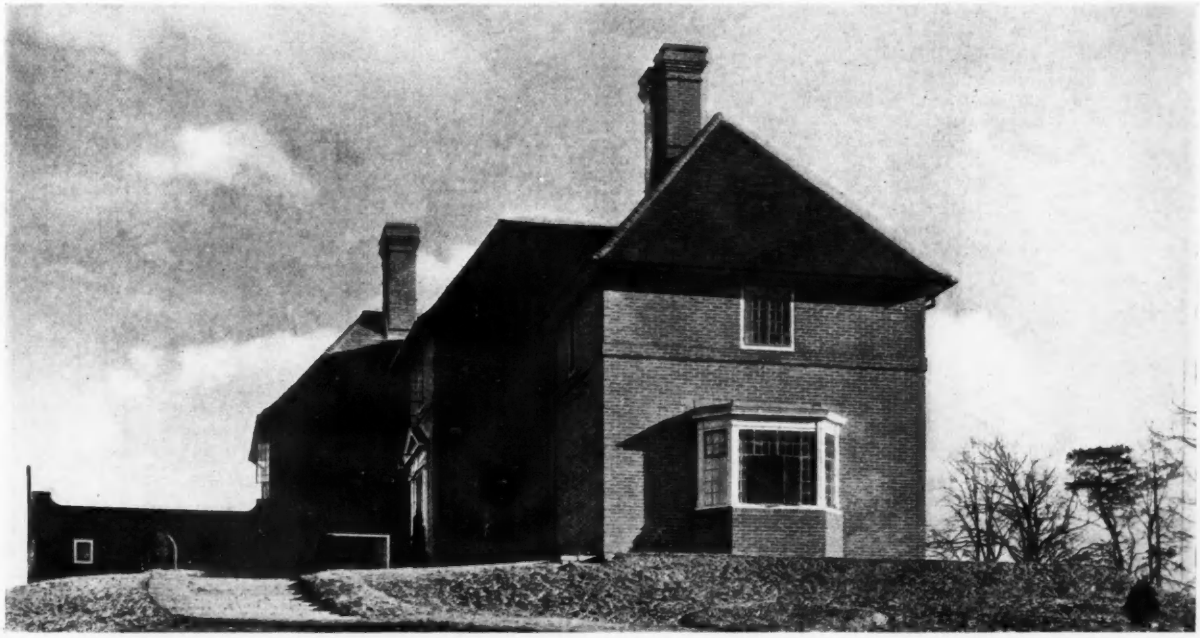
IMRIE AND ANGEL

is planned in the centre, and on either side are the drawing- and dining-rooms respectively. Direct access to the garden is obtained through windows in the morning-room, giving on to a porch.

The first-floor accommodation includes five bedrooms, dressing-room, bathroom, store and linen cupboards. The spare bedroom is fitted with French windows, opening on to a balcony overlooking the garden. All the rooms on the first floor are fitted with gas fires.

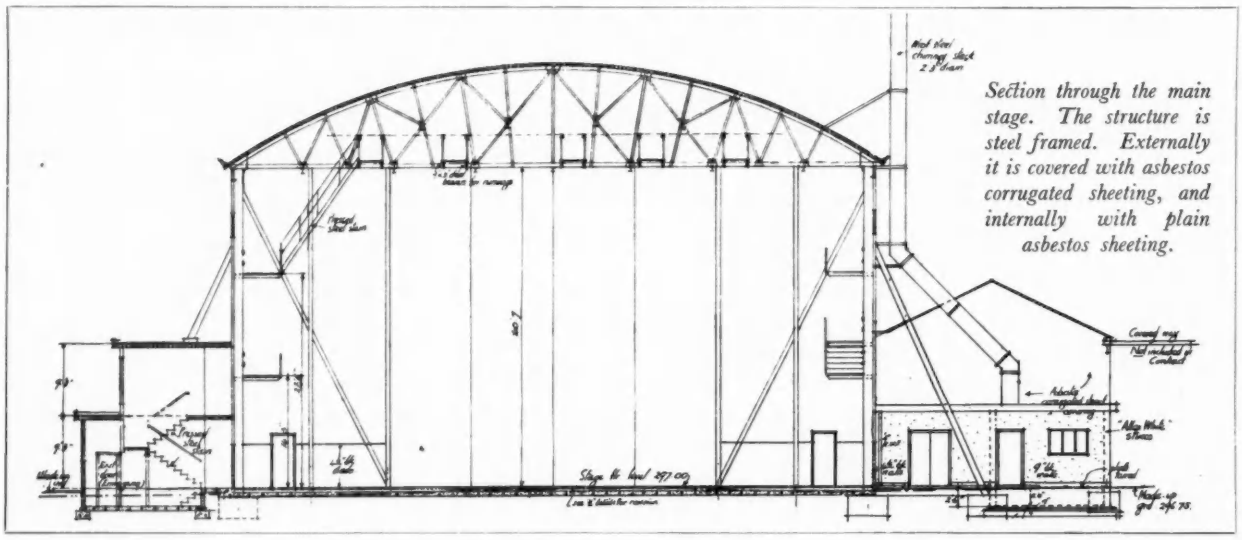
First-floor Plan





A view from the west. The bay window, which lights the drawing-room, is similar in design to those on the garden front.

D 2



Section through the main stage. The structure is steel framed. Externally it is covered with asbestos corrugated sheeting, and internally with plain asbestos sheeting.

FILM STUDIO AT ELSTREE, HERTFORDSHIRE

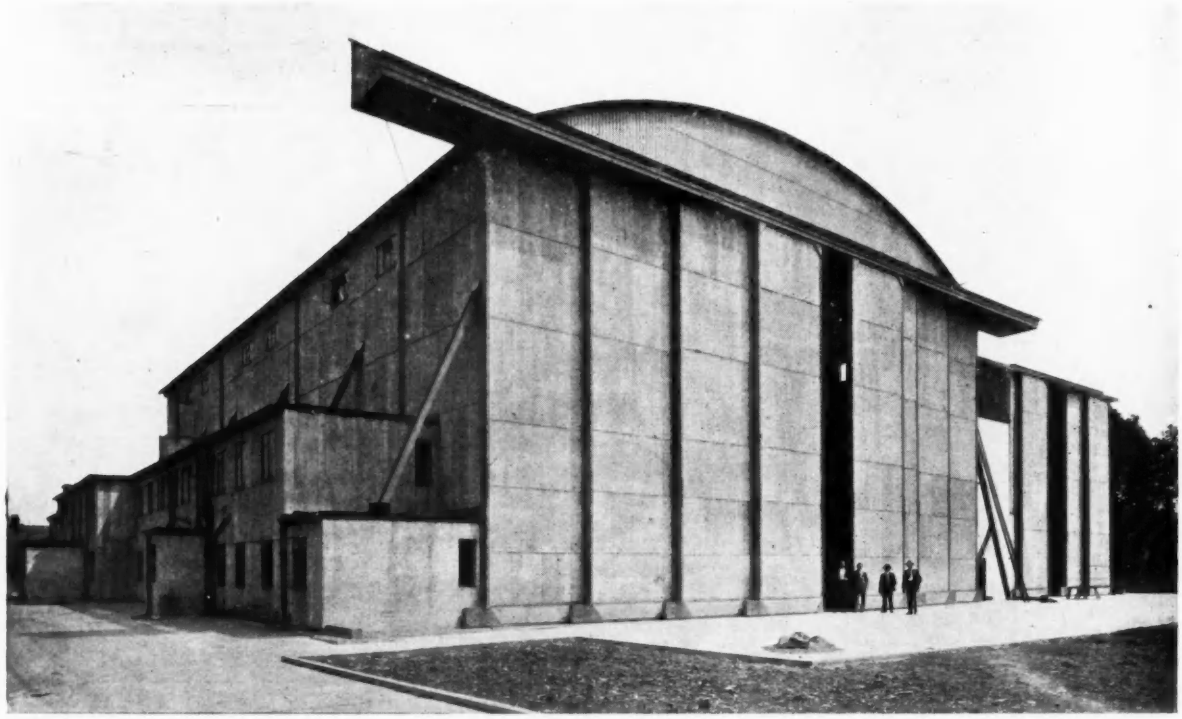
DESIGNED BY LEATHART AND GRANGER

THE film studio erected at Boreham Wood, Elstree, for the Whitehall Films, Ltd., is unique in this country in that it was planned as a self-contained and completely equipped building. The chief feature is the main stage or studio. This is 120 ft. long by 80 ft. wide and is 40 ft. high from the floor to the underside of the runways. It has been so designed that many "sets" may be filmed simultaneously.

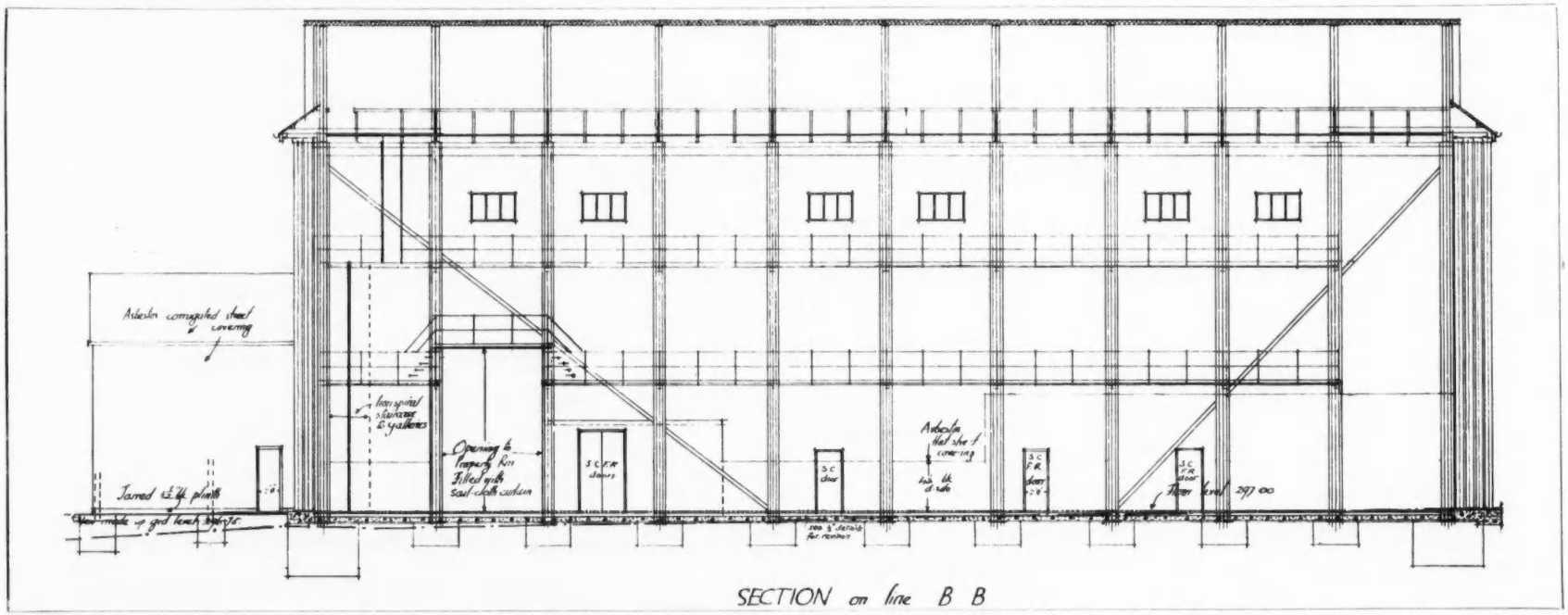
Along one side of the main stage is the administrative section, which is housed in two stories. Here, in addition to the rooms of the studio manager, scenario writer, etc., are dressing rooms for the "stars" with adjacent bathrooms and lavatories, a wardrobe room, and dressing rooms for twelve secondary artistes and one hundred "supers."

On the opposite side of the stage is a small kinema with a projection room, in which the films are examined, a smaller studio in which special portions of the pictures are photographed, the laboratory, electric dock, and the property room.

The workshops are planned in an isolated group so that work in the studios is uninterrupted by the noise made in the assembly of the "sets."



The principal front of the main stage, or studio. The sliding doors are in eight units, each 40 ft. high and 10 ft. wide. Each unit weighs 1½ tons, and is mounted on ball-bearing wheels running on railway lines to enable one man to move them.



This longitudinal section through the main stage should be compared with the photograph below. Along the side walls of the stage are two galleries for crowd and camera use.



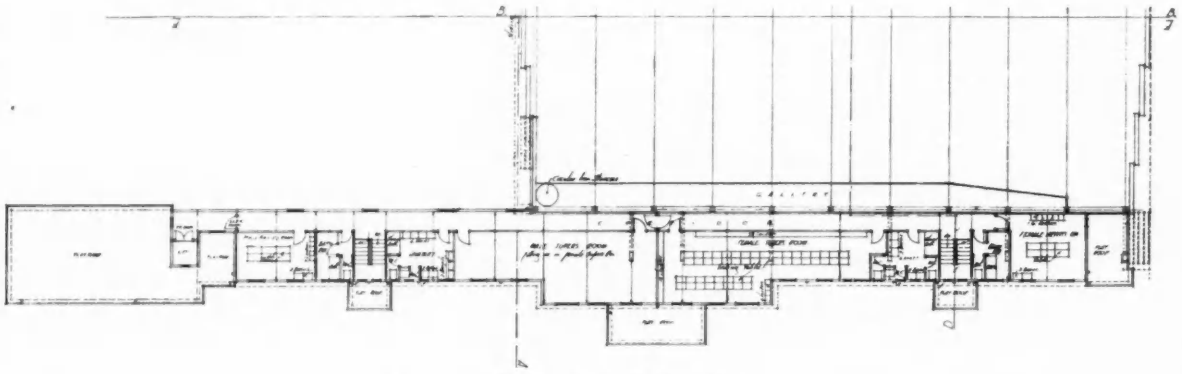
Film Studio at Elstree.]

The interior of the main stage, looking towards the principal entrance.

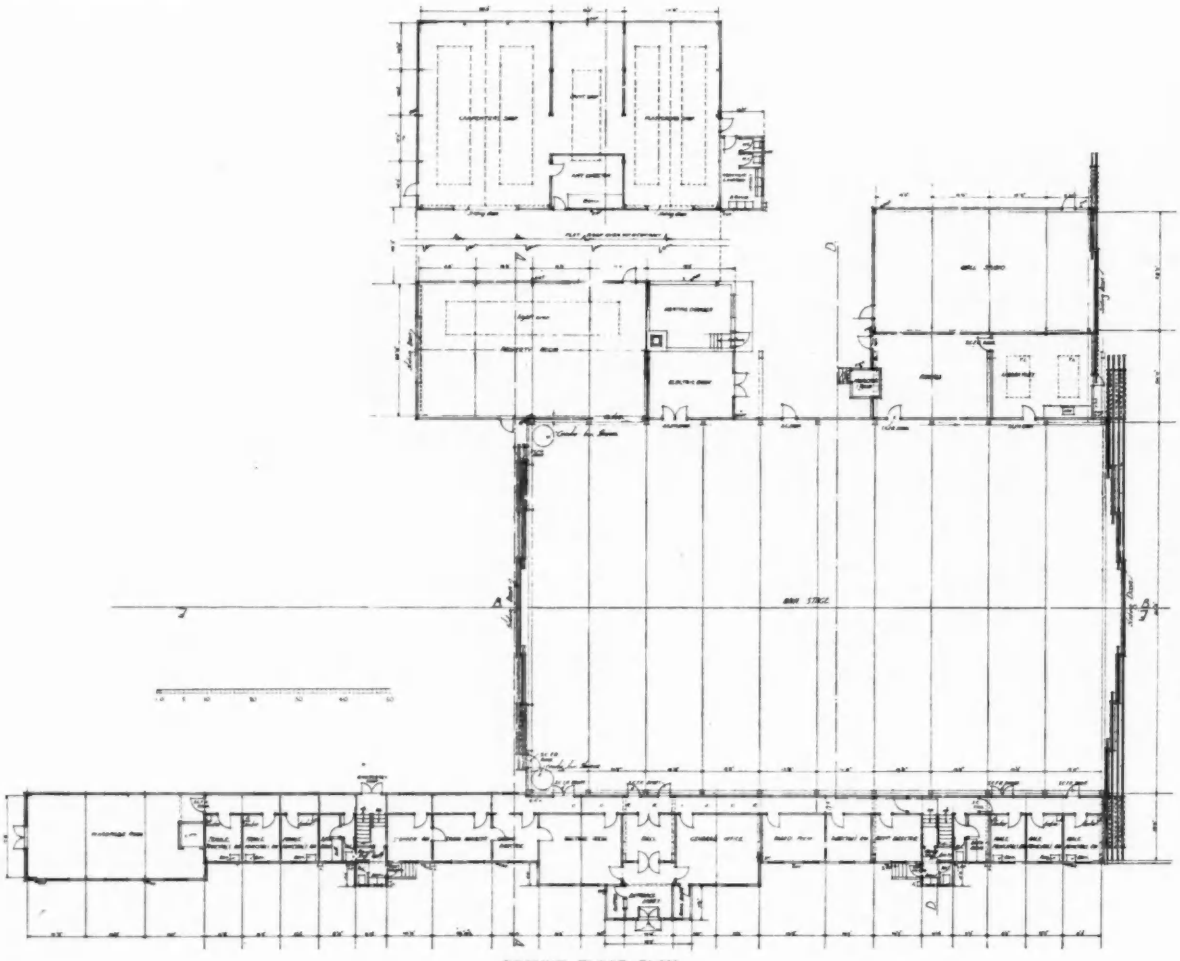


[By Leathart and Granger.

Rear view of main stage. On the right are wardrobe and principal's rooms.



PART PLAN OF FIRST FLOOR



GROUND FLOOR PLAN

Film Studio at Elstree.] [*By Leathart and Granger.*

Plans of ground floor and part of first floor. The main stage, or studio, is 120 ft. long by 80 ft. wide, and has a clear height of 40 ft.



ENGLISH PRECEDENT No. 135

THE UNIVERSITY, EDINBURGH

The simple broad effect, severity, dignity, and massiveness of Robert Adam's design for the main front of Edinburgh University, illustrated above, differs remarkably from some of his light decorative treatments, which have been regarded as feminine and affected. This University front is bold, masculine and simple.

LETTERS FROM READERS

Official Architecture

SIR,—Judging by the report of the Olympian debate on "Official Architecture," Mr. Wynn Owen seems to be distinctly peeved with the work of our own Sir Edwin. I am not a subscriber to the modern gospel according to St. Lutyens, but I fail to see how the comparisons quoted by Mr. Owen advance his argument in the slightest degree; I think, however, that he might have extended his quotations to include the comparison of Liverpool Cathedral with that gross, vulgar, architectural abortion Waterloo Station, produced, I believe, by the official architect of a railway company.

I suggest that Mr. Owen ponders upon the fact that it is becoming increasingly common for commercial and banking houses who employ their own staff architects, to call in fashionable outside practitioners to design the elevations of their important buildings. I wonder why? J. R. LEATHART

Professional Etiquette

SIR,—I have to thank Mr. G. C. Laurence for his reply to my letter on the above subject. Naturally, "the authoritative exposition of the R.I.B.A. policy is the prerogative of the President and Council," and no one wishes to usurp it. Although this may be accepted as right, they having been elected by a majority vote of the members, it is to be hoped that their decisions are not above a little friendly criticism.

To suggest that they err on the generous side in some cases is quite reasonable and, of course, it is presumed that any such criticism is wholly inspired in the interests of the good name of the profession. It is to be hoped that a somewhat stronger antiseptic will be used in future ablutions. WILLIAM DAVIDSON

Public Control of Buildings

SIR,—Some of your readers may remember that in 1922 I was privileged to read a paper at the R.I.B.A. upon the law of building outside London, which was fully reported in that part of the Press which is interested in such matters. The Institute have now again been so good as to invite me to read a paper, and the Minister of Health has authorized my doing so. It will be on November 17, and will be called "Public Control of Building: the Position in 1930."

There are some points where I shall have to go back to my paper of 1922, if only to set out alterations in the law, but so far as possible I shall avoid repetition. In writing my paper, I feel it will be helpful if I can hear in advance of any points, which otherwise might not have occurred to me, with which your readers would like me to deal.

I shall probably be taking my annual leave when this letter appears, but letters sent to me at the Ministry will be opened in my absence, and the collecting of information needed for my paper will proceed. I will try to include anything suggested within, at any rate, three weeks of your publishing this letter. A. N. C. SHELLEY

Sheffield Recants

SIR,—Returning after an absence of several weeks, I have read the leading article "Sheffield Recants" in your issue for August 20, hence this somewhat belated commentary thereon.

Apparently, after a discussion in Council, the Sheffield City Fathers voted their official architect an honorarium in respect of his central library and art gallery.

Councillor Neal voiced the opposition to the motion in a speech based upon the fallacy that an honorarium and a fee are synonymous. A fee is a legal due solicited, while an honorarium is a gratuitous appreciation expressed in terms of £ s. d., and is not necessarily an admission that the normal remuneration of its recipient is inadequate.

The writer of the leading article has likewise been beguiled by this fallacy, as also by another regarding the relative cost of the services of an official architect and a private firm.

Official architects are a product of an economic development, which in industry and commerce is relentlessly replacing individualism by collective organization, and ascertained economy is a primary reason for his existence.

Official architects today are drawn from the same source as private practitioners as regards training, education and scholarship, and are therefore, in the aggregate, as capable of producing effective architecture, regardless of the magnitude of the work. Like private practitioners, however, they naturally vary in inherent ability. In knowledge of architecture and design there is, today, no essential difference; and both types are normally members of the same Royal Institute of British Architects.

Official engineers, legal or medical men, are regarded as being of equal status with their professional contemporaries by their respective professions, and the same attitude should prevail amongst architects.

The expression that the Sheffield City Council, by granting the honorarium has made it clear that by entrusting the design of its central library and art gallery to its official architect, "it has done something it ought never to have done" is merely a mental distortion of the true perspective of the Council's action, and the entire leading article appears to emanate from a degree of confusion regarding the meaning of words, and an almost complete delusion in respect of the actual facts relating to the entire subject of official architecture.

R. WYNN OWEN

Polytechnics and Exhibitions

SIR,—Surely certain exhibits of the polytechnics and art schools are much out of place in an exhibition of building trades. Those illustrating the varied work of students in the trade shops are of the greatest value in raising the standard of the building crafts, but when these institutions embark on the teaching of architecture, the majority judging from the exhibits—are content with a much lower standard. To display these efforts on the stands of the Exhibition is altogether out of place, and gives a false impression of the standard of architectural education in this country.

Certain day-school courses of a few polytechnics and art schools have recently been recognized by the Board of Architectural Education as up to the standard of the R.I.B.A. Intermediate Examination. Nevertheless, recognized or not, they are unable to give a student such facilities necessary for the training of an architect in all points of his profession as are offered by the recognized architectural schools throughout the country.

At the best, a rate-supported polytechnic supplies the youth of genius without money with an opportunity to get his foot on the architectural ladder, and for such, with a teaching staff able to recognize and guide merit, it is a priceless privilege. Not a few successful men to-day owe their first start to a polytechnic. But for one exceptional case there issues from the polytechnics a stream of half-educated (architecturally) young men who drift as draughtsmen in and out of offices, a floating population of casual labour without prospects, and lacking the qualifications to enable them ever to better their positions. These men might have become master craftsmen in the building trades, had they not become the innocent victims of a false snobbery fostered too often by the teaching staff of the polytechnics, who are anxious to keep up the numbers of their evening class attendances.

The remedy, it seems, lies with the public, who, as ratepayers, should forbid the waste of money on the architectural course in any polytechnic or art school, unless that school is recognized by the R.I.B.A. Board of Architecture, with a teaching staff fully qualified and approved by the Board.

POLYGNOTUS

Settling-Up Honeywood: xix

BLOGGS TO THE RESCUE

BY KARSHISH
(H. B. CRESWELL)

An offensive stuffy smell in the bedrooms, which has long been a cause of complaint by the owner, Sir Leslie Brash, and his family, has lately proved to be due to fumes from the heating furnace which, somewhere and by some means yet to be discovered, find their way into the hollow wall and are drawn into the floors where the joists bear on the inner 4½-in. wall, and thence invade the rooms.

Brash has also been concerned by proposals to build villas and bungalows right up to his boundary, and has just heard from his solicitors, Russ and Coy., advising him not to proceed against the builder, Grigblay, nor the manufacturers, the Riddoppo Company, in respect of defective painting, and for the reason that the Riddoppo Company has gone bankrupt and there is no evidence of defects being due to improper workmanship on the part of Grigblay.

The following are copies of letters enclosed to Brash by his solicitors, Russ and Coy.

(ENCLOSURE 1) RUSS TO SECRETARY, RIDDOPPO COY.

Dear Sir, 30/9/26.

We are instructed by Sir Leslie Brash, of Honeywood Grange, Marlford, Kent, that certain paint manufactured and supplied by your Company to Mr. Marston Grigblay, builder, of Maidstone, for the decoration of Honeywood Grange, has proved seriously defective; and have to say that unless you can make satisfactory explanation showing the said defects not to be due to any fault in the paint you supplied or, alternatively, will at once give an undertaking to restore, renew or repaint as may be necessary for the proper completion of the work, we are instructed to take action against you for breach of warranty.

Yours faithfully,

(ENCLOSURE 2) RIDDOPPO TO RUSS

Dear Sir, 2/10/26.

The paint we supplied to Mr. Grigblay a year ago, which we understand is the cause of complaint, was our well-known new novelty Riddoppo Super-Paint (Matt) and was in perfect condition as taken out of stock and same as supplied to others. We can demonstrate the superior quality of our Riddoppo Super-Paint, and produce evidence of painting carried out with paint taken from our stock before and after same supplied to Mr. Grigblay.

The defects are due to neglect of painters to follow instructions, which we now enclose as sent to Mr. Grigblay and all others and clearly printed on the tins.

We have no intention to renew defects, as same are due to neglect to follow instructions and not to Riddoppo Super-Paint, and which is no business of ours.

Yours faithfully,

(ENCLOSURE 2A) PRINTED LEAFLET

NEW NOVELTY "RIDDOPPO" SUPER-PAINT

IMPORTANT. See the word "RIDDOPPO" (with 2 "d's" and 2 "p's") on every tin. NO OTHER GENUINE and if noticed should be notified at once.

N.B. These instructions must be followed if best results desired.

INSTRUCTIONS FOR USING RIDDOPPO

1. Use at a temperature of 55 degrees or over which should not be less than 40 degrees but in damp weather a higher temperature gives best results particularly for last.

2. Keep air-tight lid hermetically sealed and well stir before transferring and at once replace.

3. If copper-bound tools are used must be protected as RIDDOPPO acts as solvent and same may affect appearance.

4. All tools to be used first immerse and thoroughly cleanse in "RIDOP" (pink tin) supplied with all orders only after careful drying.

5. No paint must on any account be returned but specially in damp weather and if left overnight to be removed from pot carefully cleansed after with "RIDOP" (pink tin) and dried before same is again re-used.

6. As damp takes longer to dry close windows or similarly open and shade from sun if same is not.

7. If ropy add "RIDOP" (pink tin) unless affected by frost though only a small amount and not otherwise or results will be unsatisfactory.

ALL TINS ARE THE PROPERTY OF THE RIDDOPPO COMPANY WHICH WHEN NOT RETURNED WILL BE CHARGED 2s.

(*Issued by Riddoppo Ltd.*)

The seven golden rules of Riddoppo!

One disadvantage of a Public School and University education (however lightly faced) is that it prevents a man from understanding directions such as these, which offer no difficulties to Bloggs and his painters, and which Grigblay could probably read aright if he stood on his head to do it.

(ENCLOSURE 3) RUSS TO GRIGBLAY

Dear Sir, 4/10/26.

We are instructed by Sir Leslie Brash to point out that certain painting carried out by you at Honeywood Grange under your contract has developed serious defects, which you have declined to remedy after being required to do so.

The Riddoppo Company, who manufactured and supplied the paint in question, state that it was taken from stock and was in perfect condition, as supplied to other customers, and that they sent you full instructions for applying the paint, which instructions were also printed on the tin.

We are instructed to inform you that unless you can give a satisfactory explanation that the failure of the paintwork is not due to defective workmanship or other cause for which you are responsible; or, alternatively, will give an undertaking immediately to restore or renew the defective paintwork to the satisfaction of the architect, Sir Leslie Brash intends to have the necessary renovations carried out by some other person and to deduct the cost of such renovations, together with certain expenses he has already incurred in remedying defects, from the balance of moneys retained by him as security for the completion of your contract.

Yours faithfully,

(ENCLOSURE 4) GLAUBER AND WALSH (SOLICITORS) TO RUSS

Dear Sir, 8/10/26.

Our client, Mr. Marston Grigblay, instructs us to say, in reply to your letter to him of October 4th, that he strongly objected to use Riddoppo paint and only did so to oblige your client after receiving the written undertaking of the architect that your client accepted full responsibility for the result of the experiment; that he placed his foreman painter in charge of the work and employed only skilled decorators upon it; that the instructions supplied with the paint were exactly followed, or if not exactly followed, then followed as exactly as the ambiguous and confused wording made them possible to be understood; or, if understandable, then as exactly as painters and decorators can, or could be expected to understand and follow them; or if the said instructions were not ambiguous, then that they were redundant and fastidious and such as no practical men could observe, or if they were not, then that no warning of such defects as have occurred was given, so that these defects are not due to any failure to observe instructions, if clear instructions were given, which my client denies, but were due to the omission of necessary warnings of dangers of which my client could have no knowledge, as the paint was

composed of "new and secret ingredients."

Furthermore, my client's case is that the said instructions are worded and designed to be, and in fact are, a mere device to enable your clients to shelter themselves from liability for defects in their paint; which paint my client has evidence to prove is generally discredited by the building trade as a worthless imposture.

I am further instructed to say that my client contends that he has carried out his contract to paint in a skilful and workmanlike manner, and that he refuses to renovate or restore or renew or have anything more to do with any painting at Honeywood of any kind whatsoever or for any consideration whatsoever; and that my client regards the threat of an action by your client as the malicious attempt of a rich man to bully and browbeat a poor one, and will defend any action which your client may bring to his last penny.

Yours faithfully,

(*Here ends the correspondence enclosed by Russ to Brash.*)

As Grigblay said—"There are others who can employ solicitors besides Sir Leslie Brash." Grigblay appears to have employed a solicitor and a half.

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 14/10/26.

I have been away from the office on important business and found your letters of the 8th and 10th awaiting me on my return yesterday.

I am very sorry to hear of the building activities and really do not know what to advise. I am afraid, however, that no question of infringement of your copyright arises. In the case of the block of cottages you proposed to build last year, the entire plan—which was the material part of the design—was, as you say, "purloined"; but I do not think there can be any copyright in an architectural feature, and though the villas may imitate, they cannot attempt to *reproduce* any part of your house. I am afraid, too, that you have no copyright in the word "Honeywood," as it is a place-name which was in use long before you adopted it.

As regards the proposed bungalow allotments, I do not know what to say. The only thing seems to be to buy the people out. It was, I think, considerate of them to give you the opportunity of acquiring the land. They perhaps thought you might not like to have buildings of that kind close up to your boundary.

I have received the analyst's report. He says the smells are due to fumes from the heating furnace. These must somehow get into the space of the hollow walls and are by that means distributed to remote parts of the house. I cannot understand in the least how this has happened. However, Mr. Grigblay has agreed to make no charge for putting things right, as it is a defect for which he is responsible.

I was sorry to learn the result of your negotiations for settlement of the Riddoppo dispute. I have always felt, as you know, that Grigblay could not be held responsible in view of his objection to the paint, and his consenting to use it only after you accepted responsibility for the result. This was also Mr. Chawlegger's view, you will remember, and now Mr. Russ evidently feels the same about it. It will be impossible for me to see you this week, but I will ring up early next week and arrange a meeting. I am extremely busy just now.

You asked me some time ago to let you have particulars of my charges. These I now have the pleasure of enclosing.

Yours sincerely,

This letter seems to have been written on one of the very worst of Spinlove's "bad days." Except for the directions it gives Brash on the matter of copyright, it is futile to the point of exasperation. If he had no advice to give he should have said so, instead of elaborating vacuity. Brash is well aware that he has acquired no rights in the word "Honeywood"; that he can rescue himself by "buying the people out," and that the one entirely impossible explanation of the proposal made him by Snitch is consideration for his feelings or his interests.

Spinlove's comment on the Riddoppo fiasco—"I always told you so"—and his bland assumption that the whole nuisance of the smells is satisfactorily disposed of by Grigblay's putting it right "without charge" is the very cream of tactlessness; and why he should choose this occasion of all others to tell Brash, twice over, that he is too busy to give him full attention, and to send him particulars of his charges, is beyond understanding.

As regards this matter of architectural copyright, it is only in recent years that the thing has been recognized in English Law; and there have not been enough judgments to determine how the Courts apply the test of "colourable imitation"—which establishes infringement—to plans, elevations and architectural features. There are, however, from time to time claims by architects whose published designs for small houses have been adopted by private building-owners. Such claims are usually settled by the author of the design being paid substantially more than the fees he would have earned as architect for the work, and the making of them is among the most lucrative activities of architectural practice; but the generality of architects have a natural repugnance to taking advantage of simple souls whose attachment to the great ideal of getting something for nothing has been a little too fervid.

Appearances are that Spinlove is not anxious for Brash to see Pricehard's report, and no wonder!

GRIGBLAY TO SPINLOVE

Dear Sir, 14/10/26.

As promised, we wrote to our foreman Bloggs on the subject of the run of the furnace flue, and his report is as follows:

"She start off left hand pretty quick but only as far as the top of fire lump at back. . . . Then she make a sudden turn and rise up straight, but going away backwards, eight courses I reckon or may be ten, till she have nine inches to face of cellar wall. . . ."

Bloggs says this was done by your orders to prevent wine from getting chilled, and that it makes the flue very tight just above, and he had difficulty in getting it round. He goes on:

"After that she start off, and away she go left hand over the door of fuel and past soot door till that girder under kitchen hearth stop her; but she just lean over right hand to clear and off she go again nice and quiet right up to stalk and a good one for a brush all the way after she pass the soot door. She was a bit tight below I admit, but I did the best I could, and she swept beautiful and draw a treat and so I left her and do not know what the trouble can be since."

We are afraid the above does not help us much, but Mr. Grigblay is arranging to go over to Honeywood with the plans on Thursday and see what he can make.

Yours faithfully,

It is apparent that Bloggs's authentic chirp is in part lost to us by the editorial conscience of the typist. I picture the omitted passages as recording Bloggs's views of the architect's requirements.

He speaks of the flue as "she" out of respect and affection for flues, and for somewhat different reasons than when he used the same word to designate Lady Brash.

SPINLOVE TO GRIGBLAY

Dear Sir, 15/10/26.

I write to confirm telephone message. Mr. Grigblay to postpone visit Honeywood till further communication from Mr. Spinlove.

Yours faithfully,

R. S. PINTLE

Pintle is Spinlove's assistant and is presumably acting on instructions Spinlove gave before he went away on this "important business" of his. Brash's threat to have Grigblay "thrown out into the road" if he came again to the house would seem to make this intervention by Spinlove no more than merciful. What, however, must quite properly have weighed with Spinlove is that Brash has still to unburden himself of some deep grievance against Grigblay, and that being so Spinlove cannot be a party to an

act by Grigblay which Brash for any reason has said he will not tolerate. In human affairs things are not unimportant because they are childish and silly: in fact, the chief burden of life is the importance of trivialities.

GLAUBER AND WALSH TO SPINLOVE

Dear Sir, 18/10/26.

We are instructed by Mr. Marston Grigblay to call your attention to the fact that the final balance under our client's contract with Sir Leslie Brash fell due on the 10th of this month and to request that you will at once issue the necessary certificate for the amount of £1,242 11s. 9d., as shown in the Statement of Account agreed by you on behalf of Sir Leslie Brash.

Yours faithfully,

As Grigblay has been called upon by Spinlove to make good the defect to which the escaping fumes are due, he is not entitled to this certificate for final balance which only becomes due after he has completed his covenant to make good defects; and as Grigblay has agreed to make good the defect and is aware that Spinlove is not entitled to draw the certificate until he has done so, it must be assumed that his solicitors wrote this letter on instructions Grigblay gave them before the defect was established. Grigblay no doubt so instructed Glauber and Walsh at the time he employed them to answer Russ's threatening letter, for the withholding of the certificate by Spinlove, or the refusal by Brash to honour it, would bring the Riddoppo conflict to a head. Such a letter would also compel Spinlove either to range himself in opposition to Brash by drawing the certificate and signalizing his decision that Grigblay was not responsible for the Riddoppo failure; or to join issues against Grigblay by deciding that he is responsible and refusing the certificate.

SPINLOVE TO GLAUBER AND WALSH

Dear Sirs, 21/10/26.

I am unable to draw certificate for final balance under Mr. Grigblay's Honeywood contract as there are still outstanding defects which he has been called upon to make good.

Yours faithfully,

This letter is either clever to the point of being cunning, or it is merely the result of shortsightedness; and from what we have seen of Spinlove the latter explanation seems the more likely. If Spinlove perceived that Glauber and Walsh wrote in ignorance of the fumes defect, and for the purpose of bringing the Riddoppo dispute to a head, his reply is a most adroit evasion: for had he stated plainly that the defect which prevented his issuing the certificate was that of the fumes, he would have implied that the Riddoppo defect was not an obstacle to the issue. He has answered Glauber and Walsh and still retains his firm position on the fence.

[NEXT WEEK: XX—FAT IN THE FIRE.]

CARLISLE STREET FAÇADES COMPETITION

THE awards in the Carlisle Street Façades Competition have been made as follows:—

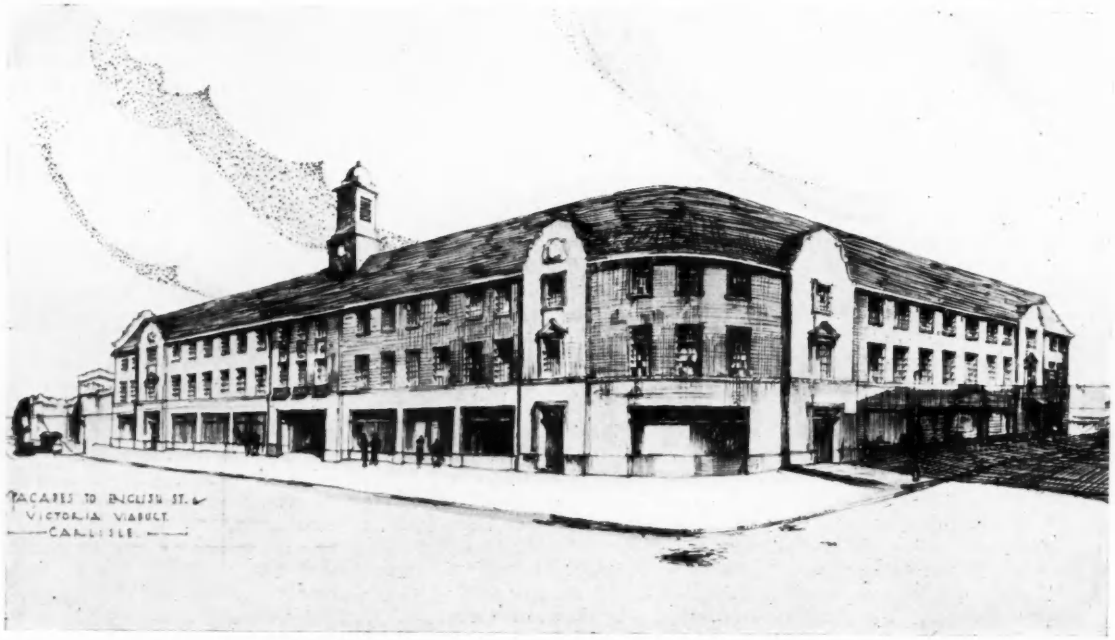
1st, Thomas George Richards, of London.

2nd, R. A. Cordingley, M.A., A.R.I.B.A., of Durham.

3rd, divided between *a*: Frank Morrall Maddox, of Burslem, Stoke-on-Trent; and *b*: Cyril Farey, A.R.I.B.A.; A. S. Knott, A.R.I.B.A.; and Miss Edna Mosely, A.R.I.B.A., of London.

Mr. Francis Jones, F.R.I.B.A., the assessor, in his report, said: "After very careful consideration I have placed first design No. 49. It is a nice, quiet, market-town manner of building, and the author is evidently a man who could handle the actual building well. The long frontage to English Street has been treated in a quiet, dignified manner, but devoid of the monotony I have found in so many of the designs submitted. He has shown, in the centre, a group of windows over an opening which could either be into a large shop or restaurant, or into an arcade if it were decided to build one, and he marks the centre of the building by a very nicely designed little clock turret in the roof. At either end, but not at the extreme end, he has a doorway with a friendly gable above it. . . . The design is thoroughly capably handled, and I feel sure could be adapted to the actual requirements of the buildings when they are built."

The three premiums offered were £300, £200 and £100, respectively.



Carlisle Street Façades Competition: The First Premiated Design, by T. G. Richards.

QUESTIONS THAT ARISE

Cement Tests

T. E. writes : "*I am carrying out a large contract, in which there is a considerable amount of reinforced concrete work. Would it be sufficient for the makers to send to the testers a sample of the brand of cement selected, or will it be necessary to make tests from the consignments as they arrive on the works?*"

In buildings where there is a large amount of reinforced concrete work, or for any work of good class, provision should be made for samples of cement to be taken for testing purposes.

The average firm who make a good brand of Portland cement can be relied upon to supply the material stipulated by the architect, but there is nothing to stop an unscrupulous builder from sending on to the works a foreign cement in the required makers' bags, if the sample of cement is not taken from the makers' bags on the works.

Therefore, the samples of cement should not be sent by the maker, but taken from the supply on the works.

A consignment of cement of about ten tons should be dispatched to the works as soon as possible after the commencement of the job, so that no delay occurs in the progress of the work.

A report will be received from the testers about a week after the dispatch of the cement.

I do not consider it necessary to take samples from each consignment. They should be taken at periods so that the builder will never know when he will be asked to furnish the amount required for a test. W. A. D.

Plywood Dados

W. R. writes : "*I have been considering using plywood for dados to some of the principal rooms in a new building, to lessen the cost, in lieu of dados framed in pine. I had thought of forming the panels of plywood and covering the joints with moulded fillets, finished with a capping. So far I have used plywood only for panelling to internal doors. Is there any possibility of the panelling shrinking or splitting by its nearness to new brick walling? Are there any precautionary measures I can adopt to ensure protection to the wood? The building will have central heating and radiators will be fixed 6 ins. clear of the panelling.*"

I have used panelling for dados in a public institution, and am well satisfied with the result.

It should, however, be borne in mind that there are a considerable number of plywoods on the market, and to secure a good job it is necessary for your correspondent to see that the material is obtained from a maker of repute.

The better makes are of wood throughout, the three or more layers being cemented together by means of a secret process.

For dados, plywood of ½ in. thick should be used, fixed to creosoted battens.

It is essential that a through current of air is obtained between the plywood and the general wall face, and gaps should be left between the lengths of battening to ensure this. The back of the plywood should be coated with a good damp-resisting solution. If these measures are taken, the dampness drying out of the new walling will have no effect on a good make of plywood. A. B.

Connection to Sewer

M. writes : "*My client owns a block of houses which drain into an existing public sewer in the adjoining road. Under a new sewerage system now being laid throughout the district a new sewer is to be laid in the road. Can the local authorities compel my clients to reconnect to the new sewer, or must they bear the cost?*"

Unless the drains are certified to be in bad order, or defective, the local authorities cannot compel the frontagers to connect to the new sewer. The local authority themselves must bear the cost of the connection under section 24 of the Public Health Act, 1875. R. W. M.

Plastering Steel Joists

J. D. writes : "*I am having a number of steel joists plastered. They are not to be encased with concrete, but are to have fir cradling fixed to the webs and covered with expanded metal. Will a good enough key be obtained for the plaster, by carrying the expanded metal round the underside of the bottom flanges, and plastering direct, or will it be necessary to bolt fir plates to the underside of the bottom flanges to keep the mesh clear?*"

Where steel joists are not encased in concrete, the expanded metal to receive the plaster work must be kept clear of the smooth face of the steelwork.

The most satisfactory method I have found is to secure a ½-in. mild steel rod to the centre of the bottom flange. This rod should run for the whole length of the beam, and be secured with metal clips at about 4-ft. centres. The expanded metal lathing fixed to the fir bracketing at the sides can then be carried round the bottom flange, the rod keeping the lathing clear, and affording a key.

This, of course, is a cheaper method of executing this work than bolting fir plates to the underside of the flange to take the mesh. S. V. J.

Rubber Floor

A. V. writes : "*I propose laying rubber tiles over an old, rather badly worn, wood floor of a shop, to smarten up the appearance and make a silent floor for customers. I have been told, however, that the lines of the boards will show through the rubber, even though the surface of the floor is planed off. Is there any satisfactory method which has been used to prepare for a floor of this type?*"

It is essential that the sub-floor for rubber tiling must be smooth, and it has been suggested that sheets of plywood nailed down on existing boards will form a satisfactory layer.

A better way, however, is to lay a thin surface of patent magnesite floor on the wood boards. Leave this to harden and dry for about six days, and the rubber tiles can be placed on the surface without ill consequences. The best adhesive to use for this purpose is rubber solution, which should be applied in two coats. The first coat should be allowed to dry before the second is applied, and when the benzene has evaporated from this, the rubber blocks can be laid in and well pressed down. W. H.

OBITUARY

ARTHUR H. TENISON : 1861-1930

We regret to record the death of Mr. Arthur Heron Ryan Tenison, F.R.I.B.A., F.R.S.A., after a heart seizure, on Monday, September 22, at the age of sixty-nine.

He was articled to E. Swinfen Harris, F.R.I.B.A., and studied on the Continent. Mr. Tenison was responsible for the design of about twenty new schools and about 200 alterations and enlargements to existing schools (private and public).

Among his works are the new school and science wing at Radley College, Sir Walter St. John's Schools, Battersea, and the remodelling of Goldsmiths' College, New Cross, and of St. John's College, Battersea. He also designed new churches at Beckton, E., Willian, Letchworth, and Arlesey, Bedfordshire, as well as alterations to various churches and college chapels, principally Minterne Burmarsh, and St. Mary's, Peckham. He designed the Royal Navy submarine memorials on the Victoria Embankment and at Shotley, and some twenty other memorials.

THE SPECIFICATION WRITER

Garden Walls and Fences

BY A. T. ALLEN, C.R.S.I.

THE purpose of walls and fences is to mark a division between properties, and to afford protection from cattle or other intruders. In this article garden walls and fences only are considered.

It is worth remembering that there is no such thing as an insurmountable fence, suitable for a garden division: only to animals is a fence a physical barrier. To human beings it has only a moral effect.

The life of a fence, which is often lost sight of, is dependent on many factors, viz.: the materials comprising it; the manner of their erection; the situation; the treatment it receives; and the periodical attention given to it.

Generally, only the first is within the control of the fencing manufacturer. It is therefore advisable that a rigid specification should be drawn up for whatever fence is required. This is the more important in the case where wire fencing is used, as fencing is bought reluctantly, and there would be less frequent need of renewal and repair if builders only bought such fencing after it had been subjected to laboratory test.

Prices of galvanized wire fencing have a wide variation. Imported material is sometimes as much as 50 per cent. cheaper than English produce. Since only physical and chemical tests can indicate its resistance to corrosion, etc., the landowner who has not the means at hand to determine this for himself is at a serious disadvantage when he enters the market to make a purchase.

WALLS

Boundary walls, whether of brick, stone or rubble, require a foundation, and are therefore expensive in construction. Many people seem to think a brick wall the proper thing for a garden boundary; and a dwarf brick wall with an iron or stone coping, surmounted by a low ornamental iron railing, is the correct thing for a front forecourt wall, but this cannot be defended nowadays, either on the score of economy or beauty. A wall, if it is to stand, must be strongly built of bricks and mortar. Brickwork itself is costly with the price of bricks ranging from 80s. to 120s. per 1,000.

A garden wall of 9-in. brickwork is better built with one course of headers to four or five courses of stretchers, because of the difficulty in getting the headers of the right length to go through the wall and be flush on both sides. Garden walls are built in all kinds of bonds.

In all new housing schemes the Ministry of Health is opposed to brick walls as boundaries. Their omission, and the substitution of fences, was made by the Ministry when the specification for new houses was modified to effect economy, but the system adopted, viz., that of a post and two wires, cannot be considered of a protective nature.

WOOD FENCES

Creosoted boarded fences are excellent for some purposes, such as protecting garden crops against winds. The decrease in the timber supply, and the increase in its cost, however, make it advisable for builders to use a substitute. For this same reason a post-and-rail fence is not recommended. The posts have to be of a substantial size and require to be exceptionally long to allow planting several feet below the ground level, otherwise however firmly the pales may be fixed the fence is liable to be blown down and damaged.

Consideration should be given to a lighter kind of fence, such as of cleft chestnut, which is easily fixed by unskilled labour and requires no periodical painting. For small property this is an ideal fencing. It can be obtained in several different styles and heights. Chestnut is a very tough, close-grained wood, which is second only to oak in lasting properties, and it is practically waterproof. No useful purpose, other than colouring, is served by immersing chestnut in creosote or other wood-preservative. A fence comprising cleft chestnut pales and oak or larch posts should last a lifetime. This has not been the experience hitherto, because of the wire used to bind the pales to each other. In the production of the fencing the wire is subject to torsion; unless, therefore, there is perfect cohesion between the spelter and the steel of the galvanized wire used, the spelter coating will crack and flake.

By using what is known as "wiped" galvanized wire the cracking and flaking of the spelter is reduced, because the cohesion between the spelter and steel in this class of wire is practically perfect; but this perfect cohesion is only obtained *by wiping part of the spelter off the wire as it emerges from the galvanizing bath*; consequently the underlying steel has very little protection.

Wire can be galvanized by a method known as the Crapo process, for which patents were granted in 1924 and 1925. It carries considerably more spelter than "wiped" galvanized wire, and it can be bent acutely, twisted and flattened, without breaking the spelter or causing it to flake or peel.

Cleft chestnut fencing should be split only from poles which will provide pales of not less than 2 ins. on the face and 1½ ins. on each arris, and the pales should be fastened to each other with four strands of 13-gauge English drawn galvanized wire.

IRON AND WIRE FENCES

A fence of either iron or wire is a substitute for wood. Though such fences can be erected at a low cost, unless the panels are strongly fixed to posts the fence will be short-lived, and instead of being economical may prove expensive. If wood posts are used these should be treated with creosote. Concrete posts may be substituted for wood posts, but owing to their excessive weight and the careful handling they require the fencing will take longer to fix.

A pointed bar fence is not considered safe where there are children.

The appearance of a strained wire fence naturally gives the impression of cheapness, but it must be borne in mind that the fixing of such a fence requires considerable attention and time to get the wires tight enough to withstand pressure. It is absolutely necessary that all end, corner and line posts should be placed so that the ground will have time to settle and harden around them before the fence is strung. It is more essential that the end and corner posts be placed some time previous to the stringing of the wire. The posts should never be fixed during frosty weather. The wire can be strung whenever there is time for this work after the ground has become thoroughly consolidated. Whether the posts are set or driven they should be kept in a straight line with the ends of the fence.

COMPARISON OF COSTS

Wall built in stock bricks with lime mortar: 14-in. piers, with panels in 4½-in. brickwork; height of wall above ground level, 4 ft. 6 ins.:

12s. to 15s. per lineal yard.

Cleft oak boarded fencing, in 9-ft. panels, with oak posts 7 ft. long, 5-in. by 4-in. butts, 2 ft. 6 ins. long, oak arris rails ex 3-in. by 3-in., two to each panel, oak gravel plank, 6-in. by 1¼-in., with oak centre stump, 2-in. by 2-in., oak counter rails, 2-in. by 1¼-in., with oak capping 2½-in. by 1½-in., and cleft oak pales 4 ft. long; sufficient oak pins (two to each post for pinning top rails), and the necessary 1½-in., 2½-in. and 3-in. galvanized rose-head nails; posts morticed and rails ended; 4 ft. 6 ins. high:

10s. to 12s. per lineal yard complete.

Open palisade fencing, in 9-ft. panels, with larch posts, 7 ft., 5-in. by 4-in., sawn 4 ft. 6 ins., fir arris rails ex 3-in. by 3-in., two to each panel, and fir

palisades, pointed, 4 ft. 6 ins. long, 3-in. by ¾-in. (for spacing 3 ins. apart) necessary pins, and 2-in. wire nails; posts morticed and rails ended :

4s. 6d. to 6s. 6d. per lineal yard complete.

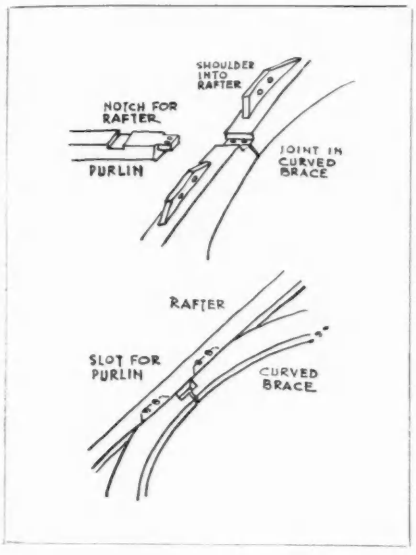
Note : A saving of 1s. 6d. per yd. could be effected by the substitution of a lighter type.

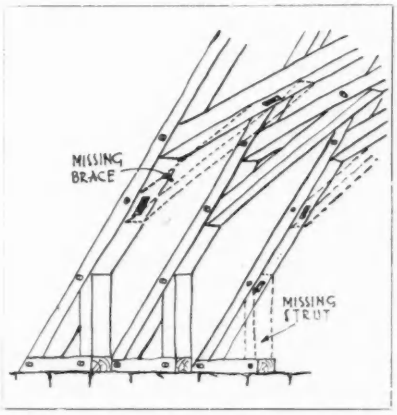
A continuous iron fence with either blunt or spear heads varies considerably in price according to the sizes of the bars and standards, but a wrought-iron fence, 4 ft. 6 ins. high, in 9-ft. panels, constructed with ⅝-in. round uprights at 4⅞-in. centres, 1½-in. by ⅜-in. horizontals and standards, standards with pronged feet and each with side stay, 2 supports under each bottom horizontal rail, complete with necessary bolts and nuts for fixing, could be purchased for :

From 7s. to 8s. per yard.

The Repair of Old Roofs

IN writing a specification for repairs to old roofs, it must be borne in mind that the ultimate object of such work is the preservation of existing work rather than its replacement with new. To strip and entirely rebuild is often the line of least resistance, and one that is specially tempting to the specification writer. It saves him the labour of long and difficult descriptions and minute detailing, and allows him to fall back on such phrases as " strip and give credit for all old tiling," and " replace with new all decayed and defective rafters." Before writing any part of a specification, a full and detailed survey should be made, and notes, and if possible sketches, taken of all joists, connections and special constructional peculiarities. Inquiries into the present local practice





and the comparison of present with old local materials will often help to determine whether it is safe to allow the traditional methods to be practised, or whether a detailed description must be given in the specification of some old method of work that is to be followed in the repairs.

Failure in the structure of old timber roofs is generally due to :

1 : The decay of the material of the members.

2 : The removal in the past of some apparently valueless but really vital part of the structure.

In spite of the magnificence of the ornamental roofs of the Late Middle Ages, the science of construction was little understood, and the carpenter lagged far behind the mason in the mechanics of building. Many old roofs rely for stability on the enormous margin of safety of the timbers, reinforced by the generous thickness of old walls.

MISSING PARTS

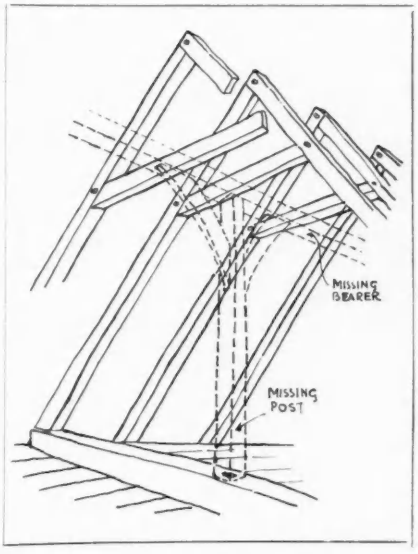
The simple beam roofs, which are really nothing more than a flat firred up from the joists, present but slight difficulties, and it is only the covering, which is usually of lead, that need be carefully specified. Couple roofs were often erected without ties of any kind, and even when a collar is apparently old an examination of the foot of the rafters may show that the wall plate had already been pushed nearly off the wall before it was inserted. In repairing these roofs a collar should be added to every fourth or fifth pair of rafters, as low down as possible, and if the walls are out of plumb some form of tie rods should be inserted at intervals.

In a roof of the braced type the braces under the collars have sometimes been removed, but the mortice holes should be visible on the inside of the rafters and the restoration should be required of all braces.

Another support that may be missing is the vertical post on the inside face of the wall. This is not the main plate, for on thick walls two plates were often laid—one near the outer edge and the other flush with the inner face. The rafters rest on the outer wall plate, and on the inner is placed the short post mentioned above. The two wall plates are connected together at intervals by cross-pieces, halved on to them. A variant of this construction, which is probably an improvement, has only a single wall plate fixed near the centre of the wall, and the rafter and vertical post are housed into a cross-piece, which is notched over the plate. This gives a wide and strong bearing to the feet of the rafters.

Sometimes the vertical parts are replaced by curved members which rise as high as the purlins. The purlin is slotted through this at the point where it is connected to another curved member completing the arch form and replacing the straight collar. This is a weak type of roof, as the cross brace is too high up the rafter; and if there are signs of spreading, a rod of stainless steel should be inserted as low down the rafters as possible.

In some old houses the enormous beams across the bedroom ceilings have given rise to the legend that the lofts above were once the hiding-place of smugglers. The stories may or may not be true, but in any case before specifying the restoration of such a roof a careful examination should be made of the upper sides of these beams. Any signs of mortice holes will probably mean that old king or queen posts have been removed. It must always be remembered that the tie beams of old roofs performed a duty different from their descendants. As its name implies, the modern tie beam is a member chiefly in tension, but the old tie beam was often responsible for supporting a direct load at the centre transmitted to



it by a sturdy king post, which in its turn supported a longitudinal beam under the collars, or even directly below the rafter heads. One should always notice if the tie beam has dropped, for if it has, the whole system of support for the rafters becomes inoperative. Frequently one finds the foot of the king post pulled out of the mortice, and the extra weight thrown on to the adjoining beams. After making the ends of the tie beam secure, a longer king post should be inserted and wedged up tightly. Never try and pull up the tie to the foot of the loose post as in modern trusses; this only increases the damage already done, for the roof is not a scientifically constructed truss.

The curved wind braces under the purlins are frequently missing, and should be replaced, as they stiffen the structure against gales.

If no old timbers are available to replace the missing parts, seasoned timber, park grown and winter felled, should be specified, and if it is possible to leave it six months after being cut to the scantlings all the better. Never replace old timber by new of smaller dimensions; the economist may grudge the unnecessary cubic feet of good oak, but, as has been said, old roofs are not scientifically constructed, and one never can tell what unexpected stress may suddenly come upon a member.

DECAYED TIMBERS

When roofs have failed through decay, it is usually by dry rot or the worm now notorious as the Death Watch beetle. Dry rot will attack the confined portion of the structure, such as the ends of tie beams and rafter feet. These beetles, or rather their offspring, are more adventurous and cunning. These grubs make their attack from the inside of the beams, so that, like a decayed tooth, the timber which appears sound on the outside is nothing more than a hollow shell.

After the discovery of the damage done to Westminster Hall roof by the beetle, its suspected presence is a serious cause for alarm, but timbers which show signs of the ravages should be examined to see if the pest is still active. In a hidden roof, a good dressing of creosote or other preservative to be well brushed in should be specified, but it must be remembered that many of these compounds stain the wood, and are therefore unsuitable for open timber roofs. Against dry rot, carbolic acid or corrosive sublimate may be used, but this latter is such a deadly poison that only expert men should be allowed to handle it. On the Westminster Hall roof a liquid formed of sulphur dioxide and camphor was used which was found satisfactory, and was stated to penetrate without staining the wood.

It is seldom necessary to dismantle a whole roof or to reject members that have partly decayed. A rotten end to a rafter or tie beam can be cut off and a new piece scarfed on, the length of the scarf being about three times the greatest depth of the timber.

In ornamental roofs with moulded beams and purlins it is often found possible to specify that new timber shall be bolted to the rotten inside after clearing out the decayed wood, thus leaving the appearance from below undisturbed. The condition of all joists should be thoroughly examined; often the tenons are rotten, pins loose, and the member otherwise sound becomes merely inert instead of doing the job for which it was shaped. Old timbers were always pegged, and in repairs this method should be continued. Another point to look for in making an inspection is the carpenter's marking of the joists. If the roughly-cut squares or circles agree on the two pieces of timber that have been brought together, there is no doubt that it is the original timbers that are being dealt with; but if the joist markings do not tally, it is probable that the roof has been rebuilt at a later date, and may in fact have been transported from another building. LL. E. W.

Dinner to Dr. Sabine

IN spite of the very short time available to make the necessary arrangements, a very successful dinner was given to Dr. Paul E. Sabine, at the Hotel Metropole, on Tuesday evening of last week. The research work initiated by his uncle, Prof. Wallace Sabine, and so ably carried on by him, is still the basis on which all acoustical work, both theoretical and practical, rests.

Mr. A. G. Huntley, who has been closely associated, on the practical side, with most of the acoustical work carried out in this country, and his friends are to be congratulated on seizing the opportunity to show this country's appreciation of the work of Dr. Sabine on his first visit to London. Dr. Sabine is on his way back to America after delivering lectures to the Architectural Congress at Budapest, and only spent a few days in London.

Dr. Sabine, during the dinner, said that acoustical demands need not impose serious limitations on the architect's freedom of expression. In fact, rooms designed primarily with acoustics in mind were not only architecturally queer but more often than not they were acoustically disappointing. Certain forms were known to be acoustically bad and should be avoided, or if used, should be modified to alleviate their defects.

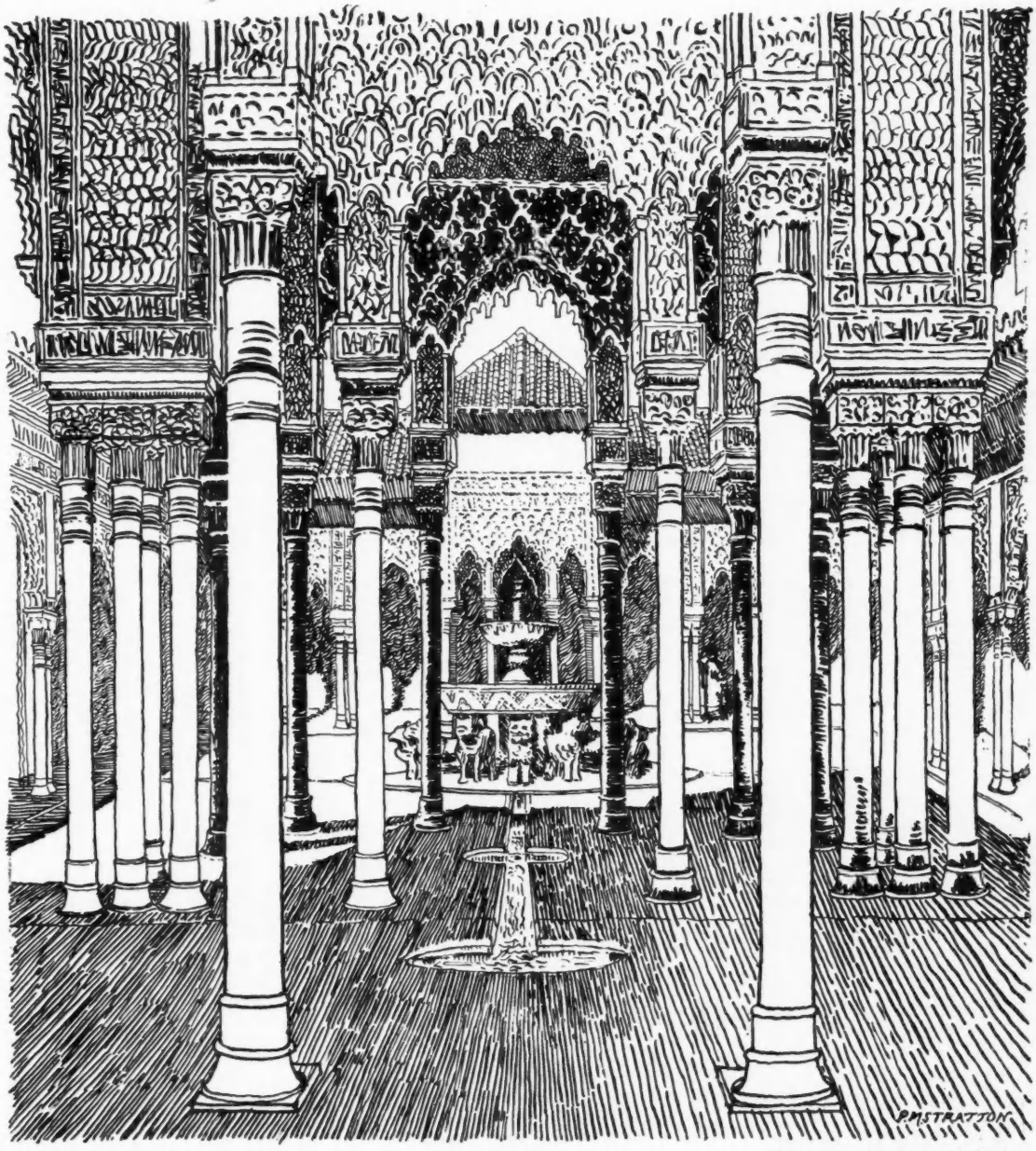
A few were cited as follows: 1: The cruciform Gothic type of structure for non-liturgical churches. 2: Circular or semicircular plans surmounted by spherical domes, with centres or axes of curvatures falling close to the head level of the audience. 3: Barrel vault ceiling with curvatures such that sound reflected from the ceiling would be focussed in any portion of the audience. 4: Monumental buildings to be used primarily for audience purposes.

These were the more important restrictions which good acoustics placed on design and these need not rule out entirely designs which, broadly speaking, would come under those descriptions. Thus, all of the older types of opera house were essentially circular in plan. They were, almost without exception, acoustically good, due to the fact that the encircling tiers of boxes and galleries provided openings from which sound was not reflected, with the result that sound which would be reflected from a continuous surface causing reverberation, was absorbed by the clothing of the auditors and the furnishings of the galleries.

The other two factors in the acoustic properties of rooms were size and the character of the finished surface, both of which affected the reverberation in rooms. It was the outstanding feature of W. C. Sabine's pioneer work to show that within very wide limits these two factors could be controlled so that any desired degree of reverberation might be secured, and this had been shown to be the most important single factor in the acoustic properties of rooms. Reverberation increased with volume or cubic contents and decreased with sound-absorbing power. The part played by the acoustic specialist was largely in helping the architect to make this adjustment in any proposed room. The development of materials that possessed the property of absorbing sound, and were suitable for exposed finished surfaces, was a matter of recent years. Today, the architect had at his disposal a considerable number of materials, fireproof and structural and without serious limitations as to possibilities of decoration, and which might be used for the control of reverberation.

The part of the acoustic specialist was not to dictate design but to modify details and to recommend means of avoiding acoustical disaster. To do this he must have a scientific knowledge of the absorption properties of materials. Laboratories for securing this data were now available. It was important that the methods of measuring absorption coefficients should yield results that were applicable to problems of reverberation. In other words, the reverberation method devised by Sabine, of determining absorption properties of materials, should be employed.

[A list of those present appears on page 528.]



The Court of Lions, Alhambra, Spain. *From a drawing by P. M. Stratton.*

THE BUILDING EXHIBITION

SUPPLEMENT THE THIRD

FLOORS AND PAVING

The Importance of Non-Slip Materials

BY KENNETH M. B. CROSS

ONE of the most difficult problems which architects are called upon to solve is the provision of durable, impervious, non-slippery and attractive pavings for the various purposes required in modern public buildings. Pavings that will not be affected by changes in temperature brought about by artificial heating methods, that will not crack, chip, craze nor fall into a premature decay through heavy usage, pavings that will retain their impervious nature, their colour and their texture, are required under conditions that are increasingly exacting as the speed, congestion and pressure of modern life increase.

In the consideration of finishings of a building, whether the walls, floors or ceilings, it must be presumed that the main structure will be reasonably free from movement. Where reinforced concrete construction is employed for the bridging of large spans, expansion and contraction are almost inevitable.

In steel-framed buildings the movement is less perceptible. If the main structure is not entirely rigid, cracks and defects in finishings which possess no elasticity are inevitable.

Messrs. the Kleine Patent Fire Resisting Flooring Syndicate, Ltd., at their stand at Olympia exhibit the methods adopted in the construction of their well-known patent floors. Many advantages are claimed for their various patented components.

The fact that over 3,000,000 yards of these patent floors have been used in modern buildings throughout the country is in itself evidence that architects, surveyors and engineers put implicit faith in this system.

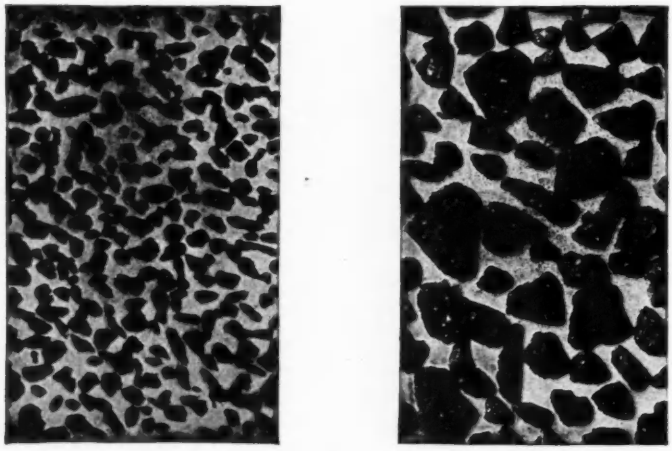
The floors are designed to form an integral and cohesive part in the modern steel-frame building, and it is claimed that they are completely fire resisting. The steel reinforcing rods are completely cased in concrete, which protects them from heat in case of fire and which effectively insulates them from the ordinary atmospheric effects which might otherwise be detrimental to the steel through the formation of condensation and ultimately of rust. For speed of erection, economy consistent with efficiency, and for covering large spans, these floors justly earned the reputation which they enjoy.

Messrs. Kleine's stand is lined with the patent surface flooring material known as Duromit. This floor is, it is claimed, dustless, hard-wearing and non-slippery. One of the greatest difficulties experienced with impervious floors which are called upon to resist the wear and tear associated with modern industrial conditions is that they have been found liable to disintegration. Small particles have in the course of time become detached and have formed a film of dust which has in some instances had a detrimental effect on costly and elaborate machinery. It is of course vital that in certain factories where instruments of precision are made or where there is delicate and elaborate machinery the atmosphere should be entirely free from dust if damage to the extent of some hundreds of pounds is to be avoided. It is generally recognized that few of the surfaces employed at the present time for floors, pavements, platforms, roads, etc., subject to hard wear are really lastingly satisfactory. Duromit floors are composed of crystals and crystalloids which according to the Mohs scale approximate to the ninth degree of hardness and are second only to diamonds in this respect. It is claimed that they are harder than iron or steel and approximately equal to the hardness of sapphires and corundum. The manufacturers state that such a floor will withstand the heaviest traffic, remain free from dust, waterproof and non-slippery whether laid under cover or in the open.

The Duromit surface may either be laid *in situ* on a cement and sand screeding or it can be used as a surface by slab makers. The largest of the small particles employed will pass a $\frac{1}{12}$-in. mesh and the material accordingly works very easily; the surface thickness varies from $\frac{1}{4}$ in. to $\frac{3}{8}$ in. according to the nature of the traffic it is likely to be called upon to withstand. The minimum thickness of the screeding should be $\frac{3}{4}$ in.

Messrs. Kleine also manufacture the Silentium sound-proof floors. With the increasing and tumultuous din, apparently inseparable from modern civilization, caused by various forms of "music" mechanically reproduced, traffic with grinding gears and solid tyres, pneumatic drills and other impediments to quiet and concentrated thought, no adequate and efficient method of mitigating the effects of such phenomena can be ignored. In any building quiet and silence are desirable; in buildings in which any form of mental work takes place they are essential.

The Safety Tread Syndicate have specialized in the manufacture of stair-treads known as Mason's patent non-slipping stair treads. The medium more generally used in these treads is of two kinds, viz., lead and carborundum used either separately or together. Carborundum gives an excellent grip, but when sprinkled on the concrete in the ordinary way it has a tendency to cut up the concrete when the granules are released by wear. The patent composition used in these treads, on the other hand, holds the grit more effectively. Steel and lead are also used in combination, the steel being grooved; but in our opinion the patent grooveless non-slipping hygienic tread, which consists of alternately arranged fittings of lead and carborundum, is excellent in every way where rough wear is to be anticipated.



Floor finishings, with fine, and coarse Alundum aggregates.



Diamond tread in brass frame.



Diamond tread in aluminium frame.

One further product of the Safety Tread Syndicate deserving of special note is their silent interchangeable rubber stairtread. Small squares of rubber are inserted in a steel frame, and they possess the merit of being easily renewable. Less harsh to the tread and silent, they are more suitable for offices than are what may be termed the heavier types of tread referred to above.

The Diamond Tread Company exhibit at Olympia sections of their grooved and grooveless stairtreads, consisting of steel or cast iron, brass or aluminium framings, filled in with patent non-slipping material. The grooved sections vary in width from 5 ins. to 1½ ins., and the grooveless sections present an unbroken upper surface of patent non-slipping material. "L" section treads are also supplied in aluminium or brass framing and are suitable for hotels, shops and restaurants. A special section is designed for steep staircases where the nosing is chiefly used.

Diamond non-slipping tiles and mosaics deserve attention, being composed of sparkling grit and hard cement which, when combined with ordinary tiling and mosaic, make an attractive and extremely practical floor which will not become slippery when wet.

Ferodo fabric steel stairtreads are applicable to wooden or concrete steps. Made in a standard width of 4 ins. the secret of their safety lies in the closely woven fabric bonded by the same special process as the well-known Ferodo brake and clutch linings. They are ready drilled and are accordingly quickly fixed.

Special white fabric stairtreads are made by the same firm for fixing to ordinary pile stair carpets as a means of ensuring safety and also protection to the carpet at the vital spot.

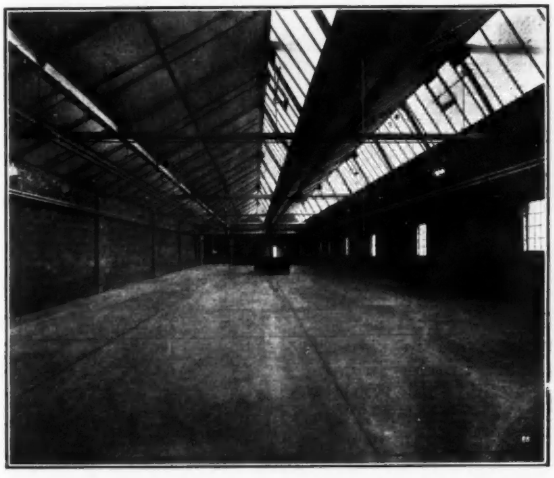
"Alundum" floor finishings are quickly earning the popularity in this country which their extensive use in the United States has promised. The pavings are in various forms to meet varying requirements; for instance, they can be laid in the form of terrazzo, giving a continuous surface and enabling core skirtings and angles to be worked at the junctions of walls and floors. Alternatively "Alundum" floors may be laid in the form of small tesseræ of varying colours of approximately 1 in. square, laid either with straight joints or to break joint. A carefully designed floor of this type is of a most attractive appearance, and in this respect is frequently superior to terrazzo. The tesseræ can also be supplied in hexagonal form. A final alternative in "Alundum" floor finishings is in the form of flooring tiles made in the usual building sizes.

The trade mark "Alundum" designates special brands of electrically fused alumina and of products made from these materials. The flooring, whether of terrazzo, mosaic or tile, is extremely durable, wear-resisting and non-slippery, wet or dry. It is claimed that no amount of traffic will wear these floors smooth though the surface is without grooves or corrugations.

In the construction of such buildings as swimming baths, whether public or private, open air or closed, where water is likely to be splashed on the surrounding bath platform or side-walk, it is essential that every precaution should be taken to avoid slipping. This is of the greatest importance at the nosing of the pond from which divers take off, and neglect of this matter has led to serious accidents. Floor finishings of the type referred to offer a safe and firm foothold to bathers under all conditions.

The Adamite Co., who market "Alundum" in this country, exhibit at Olympia details of fifteen special treads for staircases, which are claimed to be non-slipping and wear-proof, by the use of "Alundum" in the form of round-nosed tiles, straight-edged tiles, ceramic mosaic tiles and crushed "Alundum" aggregates.

Few floor coverings are more useful and attractive for offices, public buildings, steamships and certain portions of domestic houses than rubber either laid in continuous lengths or in the form of tiles. If a soft, impervious and easily-cleaned floor is required it is obtainable in rubber—any colouring is procurable and all forms of geometrical pattern can be easily made. The use of rubber for floors is com-



Duromit floor in Jacobs' new biscuit factory at Leeds.

paratively in its infancy at the present time; it is silent, economical, easily cleaned, impervious and attractive in appearance, and, moreover, when laid by the manufacturers it will be guaranteed under proper usage not to "come up." Clean, quiet and sanitary, practically everlasting, resilient and comfortable, such floors for general purposes are unrivalled.

Messrs. Leyland exhibit the specimens of their well-known rubber flooring, which should be inspected by all interested in progressive building.

The St. Helens Rubber and Tiling Co. show samples of rubber floor coverings which are supplied in all colours in the form of tiles and which can be made up in continuous lengths to any geometrical pattern required. The machine-cut rubber tiles supplied by this firm have slightly concave edges which allow the fixing cement to enter between the tiles and form a homogeneous hair-line joint on the surface. It is claimed on this account that the tiling will not creep, curl or lift, and that it is thoroughly waterproof.

The St. Helens rubber tiling is solid rubber throughout, thus ensuring that the life of the material is multiplied many times. Full advantage is taken of the resiliency of the rubber, and the colours are not superficial but are continuous throughout the thickness of the flooring.

The Ioco Rubber and Waterproofing Company have installed rubber flooring in many of the most important buildings in London, Birmingham, Glasgow, Edinburgh and Dublin. It is made in thicknesses of $\frac{1}{8}$ in. upwards, and on account of its durability it is claimed to be the most economical type of flooring in use. It is resilient, silent, easy to clean and hygienic, and merits the favourable consideration of all architects and others interested in the design of modern buildings.

The Cork Insulation Company are makers of the Eldorado cork tile for flooring purposes. Such floors are durable, noiseless and pleasant to walk upon. They are non-slippery, warm to the touch and dustless. The cork as it comes from the tree is ground, cleaned and compressed into blocks, and then baked; the latter process cements the particles into a firm mass by liquifying the natural gum in the cork. The baking also imparts a rich brown colour to the cork, which is permanent and which varies in shade in proportion to the duration of the heating process. The tiles are supplied in two thicknesses, $\frac{9}{16}$ in. and $\frac{3}{8}$ in., and in varying sizes, so that considerable variety in pattern effects is obtainable. The tiles are hygienic, silent, non-slippery, and when polished are most attractive in appearance; moreover, they are not expensive.

LONDON'S BUILDING ACTS: ii

The Need for Revision

BY H. D. SEARLES-WOOD

IN July, 1930, a conference was called at the R.I.B.A., when the following bodies were represented: The R.I.B.A., British Steelwork Association, Building Industry Council of Review, Institution of Structural Engineers, London Master Builders' Association, London Employers' Association, National Federation of Building Trades Operatives, Incorporated Association of Retail Distributors, and the Hotel and Restaurants Association.

A deputation waited on the Minister of Health, the Rt. Hon. A. Greenwood, at the House of Commons and was introduced by Mr. J. Walker, M.P.

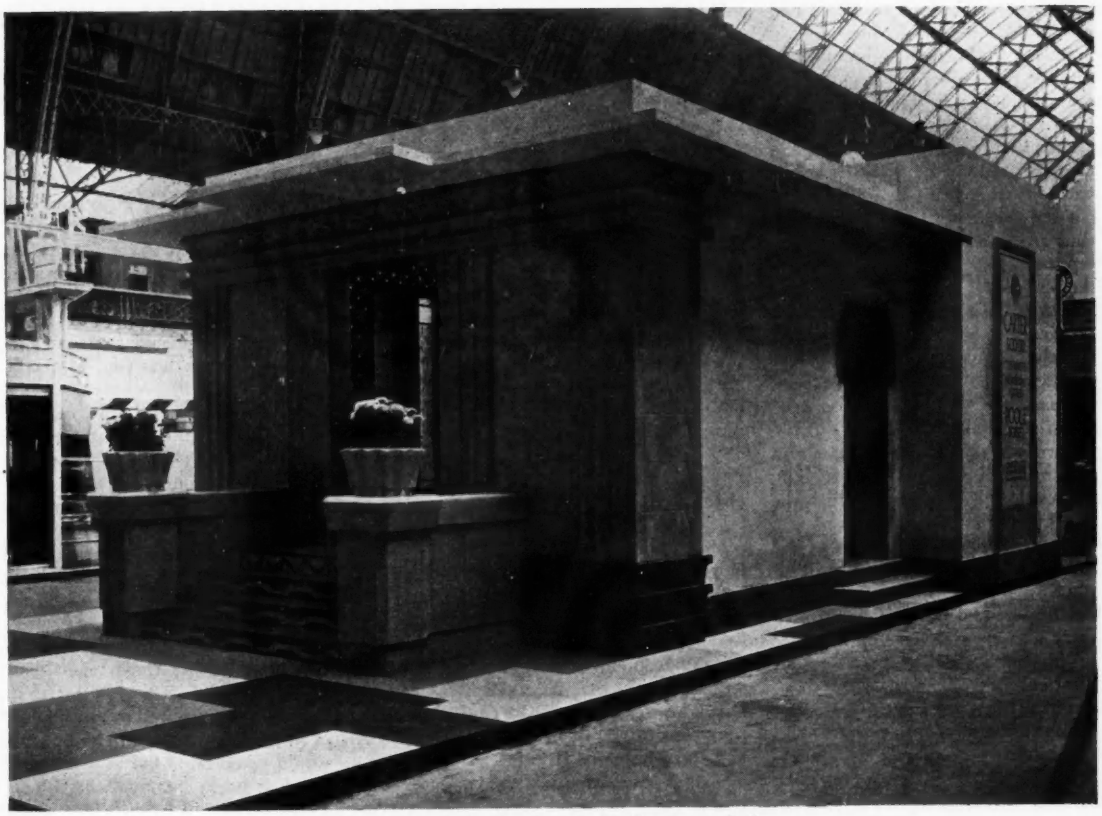
Mr. Louis Smith made the following statement, and his views were supported by Mr. Maurice Webb, Sir Woodman Burbidge, Mr. Coppock, Lord Ebury, Mr. Kavanagh, and Sir Francis Towle.

We wish to call attention to the extent to which the control of building, especially in London, has become a serious menace to enterprise and employment not only in the building trades but in the vast number of ancillary trades whose welfare is vitally dependent upon the building industry. There is no doubt that the cumbrous and bureaucratic control so often exercised far exceeds the limits necessary to safeguard public health and safety which we, no less than the authorities concerned, consider it our business to secure. This control, especially in the sphere of commercial and industrial buildings, is exercised under Acts which in many cases date back to the last century, imposes very serious restrictions upon the use of modern materials and methods of construction, and has given place to the growth of administrative machinery which needs drastic simplification.

If the revolution in building construction which has occurred during the last thirty years, due to the introduction of steel and reinforced concrete, to the vastly improved methods of sanitary services, and to the invention of new and improved building methods and materials, continues at the same rate in the future—and who shall say



The stand of Messrs. Candy and Company, Ltd.



The stand of Messrs. Carter & Company, Ltd.



The stand of the Anglo-Colonial Trading Corporation, Ltd.

that it will not?—no Act of Parliament can be kept up to date unless wide discretionary powers are given to those who administer it. In the use of these discretionary powers, complex and inelastic methods are almost bound to creep in, and while a relaxation of provisions in the Act suitable for the time it was passed may be granted, this is apt to lead to further restrictive regulations which not only were not contemplated in the Act but are in many cases unnecessary.

This deputation suggests, therefore, that as a first essential the law in London ought to be as susceptible to constant revision as in the provinces, otherwise it will become out of date almost as soon as drafted.

We are conscious that a great deal has been done towards simplification and uniformity of control in the limited field open to the Ministry through the model bylaws and otherwise, and we see no reason why statutory revision should not now be considered by Parliament to bring such control as is deemed necessary in the public interest into tune with the times, afford all local authorities a guide to securing public safety and health, and simultaneously give the industry a chance to develop as other industries by uniformity of practice and standardization.

The Building Industry Council of Review was recently formed to investigate and report on the lines upon which a rationalization of the building industry may be achieved, but we feel it necessary to emphasize that the reorganization and readjustment of the industry is rendered difficult if not impossible so long as the law is not co-ordinated for the whole country. The building industry represents not only a vast field for employment, but building costs are a first charge upon every form of commercial and industrial activity, and in assisting the industry to operate upon business lines rather than upon too rigid a regulation basis the Government can make a valuable contribution to the reduction of unemployment and clear the way for the industry to deal with the other vital aspects of building such as reorganization, standardization and finance with which it is faced.

Those bodies which now urge a reform and which are represented today have set up a Central Committee to co-ordinate the reports and recommendations at their disposal, and are prepared in conference with your Ministry to suggest lines upon which a solution of many of the existing difficulties and anomalies may be found. Their investigations have to a great extent been directed to close scrutiny of the conditions obtaining in the London area, where all building is controlled by Act of Parliament, is administered by different authorities, is subject to varying interpretations, and results in a degree of confusion and lack of uniformity which it is necessary to dispel.

Miss Susan Lawrence has stated in a letter addressed to Mr. A. M. Samuel, M.P., that representations from professional societies in regard to the London building regulations have been lacking. The R.I.B.A. have been urging the amendment of the London Building Acts on the London County Council for ten years, and representations were made jointly by the R.I.B.A., the Institution of Civil Engineers, the Institution of Structural Engineers, and the Surveyors' Institution.

This deputation is of the opinion that building legislation should now be considered on a national basis, and should be confined so far as possible to broad questions of principle.

If the Government is in agreement with our views, the building industry would be prepared to set up a technical and economic advisory council which would review and report upon all aspects of building construction and control which are from time to time deemed necessary to meet the constantly changing conditions. Such a council would make the fullest use of our research and technical and standardization institutes, and would maintain a constant touch with the Ministry with a view to giving every assistance in maintaining a flexible and up-to-date code. At a time of such serious unemployment and industrial distress we urge that this vital question is ripe for review by the Government.

The Minister said in reply that he gathered that the difficulties of which the deputation complained were experienced chiefly in London, and that comparatively little difficulty had been encountered in the provinces. But in so far as Scotland was concerned, he would see that a report of the proceedings was sent to the Secretary of State.

As regards London, the matter was, of course, one for the London County Council to consider. Obviously he could not express any definite opinion until he had heard the views of the Council, but he could certainly assure the deputation that he so far sympathized with their representations that he would himself undertake to discuss the position with the London County Council. He was aware that, as Mr. Kavanagh had stated, a technical committee of the Department of Scientific and Industrial Research were about to issue an interim report on the technique of steel construction, and he hoped that this would facilitate the standardization of building practice throughout the country.

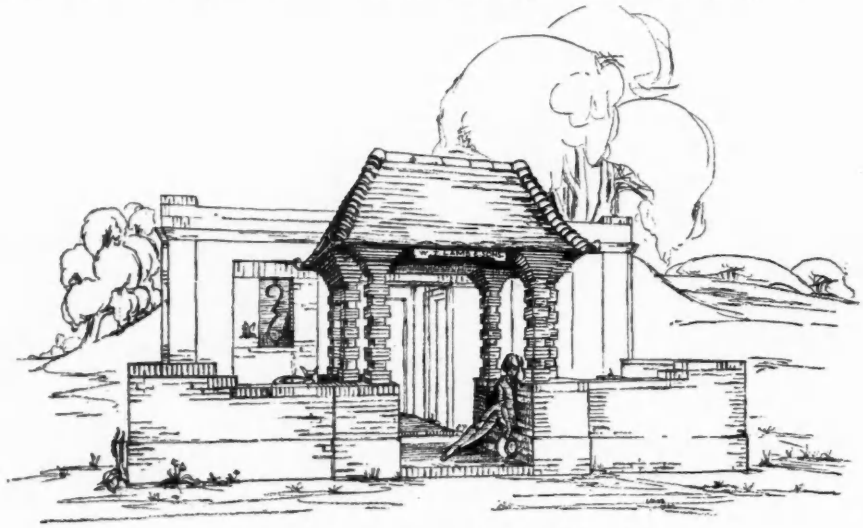
It is proposed to make suggestions for the consideration of the Minister on the following lines :

1 : By converting provisions of Local Acts into bylaws.

2 : By extending section 55 of the London Building Acts, 1930, for steel as for reinforced concrete.

3 : By empowering the Minister of Health to hear and decide appeals.

4 : By including a code of building practice in the Ministry of Health Model Bylaws.



A sketch of the stand of W. T. Lamb and Sons.

NOTABLE EXHIBITS: iii

THE stand of the ANGLO-COLONIAL TRADING CORPORATION, LTD. (Row S, 291), is built with the products of which the firm are the sole distributors. The exhibit is in three sections. In the first, Sheetrock gypsum wall and ceiling boards are applied, and the method adapted to join the boards together is illustrated. The surface of the boards may be decorated immediately the boards are fixed, either with distemper, paint or wallpapers. The walls of this section are decorated with Textone plastic paint, and the ceiling is distempered. The second section is devoted to Donnacona insulating wall and ceiling boards, a product of Price Bros., Ltd., of Quebec, Canada. It is of spruce fibre board, ½ in. thickness, and has two distinct surface finishes: as a base for plastering, or for conditions where wallpaper is to be used. One surface has a textured surface, which can be decorated with only one coat of distemper or paint. The third section consists of sound-proof rooms, constructed with the wall-board materials mentioned above and Riverbank eel-grass quilted blanket. Among other building specialities which the firm are distributing are Numetal weather strips, Silver Fleece steel wood, and Robras radiators.

*

The exhibit of THE SOMERSET TRADING CO., LTD. (Row E, 96), consists of a hipped roof tiled with Somerset patent interlocking tiles, made under the latest scientific methods at Bridgwater; the Somerset interlocking tile, in natural red, dun and brown; and the improved Somerset interlocking tile. Other products of the company shown are: Marseilles tiles; machine-made and hand-made sand-faced pantiles; double Roman tiles, ordinary pattern and interlocking; Abbey tiles, an attractive tile of old Spanish pattern; also pantiles and ridge tiles.

*

The exhibit of WHEATLY & CO. (Row D, 72) takes the form of a small building comprising eight main and six intermediate piers, built of red and brindled briquettes in varying colours. These piers support a hipped roof covered with red and brindled hand-made sand-faced roofing tiles, with projecting dormers in the centres of the side roofs. Underneath the dormers are the entrances to the stand which are placed between the centre piers on either side of the exhibit. A feature of the roof is the new pattern small close-fitting rounded hip tile. Between the piers, at a height of about 4 ft. from the ground, a quarry sill is fixed, constructed of 9 in. by 9 in. red round-nosed quarries. Above the sill the intermediate piers are composed of 6 in. by 6 in. multicoloured sand-faced octagon quarries up to the wall plate. Below the sill quarries and between the main and intermediate piers both inside and outside the stand on three sides are fixed vertical panels showing the different colours and qualities of roofing tiles made at the works. There are twenty of these panels, in every one of which different roofing tiles are shown, and two further panels are given up to the display of wall tiles which can be used on the outer walls of buildings as a protection against damp, and simulating ordinary facing brickwork. The centre space of the interior forms a gangway between the two entrances, the floor being covered with 8 in. by 8 in. red quarries with ½-in. joints. Underneath the hip end is a public space in which the different kinds of roofing-tile panels can be inspected. At the other end of the building is a space set out for use as an office, the floor being paved with 6 in. by 6 in. red octagon quarries, with blue dots and a blue strip border. The entrance to this office from the centre space is between two short piers, and on either side of the panels so formed are displayed various colours of pantiles. Other specialities of the firm exhibited on the stand include flooring quarries, garden edging tiles, ridge tiles, channel bricks, coping bricks, window-sill bricks, quarry fittings, air bricks, etc., in a wide range of sizes, colours and designs.

*

On the stand of SAMUEL ELLIOTT AND SONS (READING), LTD. (Row J, 179), a columned entrance leads to a central lobby, on the right hand of which is an oak-panelled room with ingle seats, a stone fireplace and an oak staircase with twisted balusters. The ceiling beams are of great age, having been recovered from the bed of the Thames when old Caversham Bridge was rebuilt. The floor is of elm boards of irregular width. The whole room is a fine example of domestic architecture of the sixteenth century. The room on the left of the central lobby is panelled in Early Georgian style with yellow pine, finished in the mellow tone that can be seen in work of the same date in South Kensington Museum. The central lobby has specimens of panelling. The exterior panels contain photographs and specimens of interlocking rail system panelling in oak and other colonial woods. There are also exhibits of work in hand, notably a reproduction of an old doorway to be fixed at the new police offices in Old Jewry.

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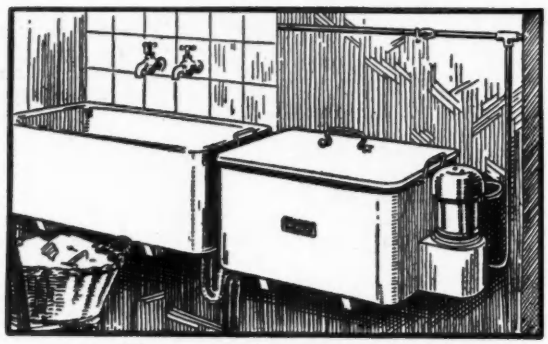
RHODES CHAINS, LTD. (Row C, 43), are patentees and manufacturers of patent pulleys and improved sash chain for hanging all sizes of window sashes, shop fronts, lifts, blackboards, etc.; round-backed chains for running over ordinary round-grooved axle pulleys; patent ball-bearing cog and grooved wheel pulleys; patent sleeve-bearing axle pulleys, with solid brass face plates and rustproof frames, with round or square grooved wheels; steel, copper and brass chains for suspending, driving and lifting purposes; and sling, coil and ornamental fencing chains. This firm controls Greenwood's Ventilating Co., Ltd., who exhibit patent cast-iron larder lights; skylight ventilators, providing permanent ventilation with lighting; skylights, and deadlights; also patent Hoppa, louvra and Sheringham ventilators, and airbricks. They claim that their ventilating windows and skylights, made in cast iron, steel galvanized, zinc and copper, provide for efficient and permanent ventilation with lighting at low cost.

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The main exhibits on the stand of L. G HAWKINS & CO., LTD. (Gal. 35), are the Hera electric washing machine and the Sprayit electric and petrol engine spraying equipments. The Hera electric washing machine is being largely specified by builders and architects as a standard feature on new estates. Several of the largest estates throughout London and the suburbs, also in the provinces, are already equipped with this labour-saving product, which can be installed at a low price. It is of a suitable shape and size to fit alongside of the sink, and the plumbing work necessary is inconsiderable. From a



Wood panelling by Samuel Elliott and Sons, Ltd.



The Hera electric washing machine.

housewife's point of view the Hera electric washing machine eliminates wash-day drudgery, for all that it is necessary to do, it is claimed, is to switch on, and the electric pump attached to the motor does the laundry work without rubbing or scrubbing, and without damage to the most delicate fabrics. The operating cost is approximately one penny per hour. The Hera can also be used as a boiler. With the Sprayit equipment it is possible to spray up to 1,200 sq. ft. per hour, thereby it is claimed cutting down application costs anything from 25 to 60 per cent. In addition to the two lines mentioned above, this company is showing examples of lighting fixtures which are already being installed by various builders as standard equipment.

★

MESSRS. GIRLING's main exhibit (Row H, 163) is reconstructed stone (Girlingstone), which is shown in the form of the lower portion of a bank front (by kind permission of Messrs. North, Robin and Wilsdon). The firm's representatives will be pleased to give all the necessary information in connection with its weather-resisting properties, density, absorption, resistance to frost and crushing strength. A further exhibit is Granostone steps, which have been extensively used in London's public buildings, cinemas, theatres, etc., and throughout the country. Resistance to hard wear is the main feature in this class of product. A small portion of a balcony is also shown, incorporating precast balcony steppings, as used on many of London's theatres. It is claimed that the rapidity and ease with which the units can be supplied and fixed make this product most valuable in the modern methods of speedy construction.

★

THE NORTH BRITISH RUBBER CO., LTD. (Row O, 269), are making a special display of rubber flooring. North British rubber flooring is to be found in many important buildings throughout the country. This flooring is made in a very large range of colourings, with plain, marbled and grained effects. Many new colours have been added to the range, enabling the flooring to harmonize with almost any scheme of decoration. North British rubber flooring, whilst it is clean and silent, has an added advantage in comfort and lasting wear. Other North British exhibits include hose, belting, sheet, diaphragms, and every kind of rubber equipment suitable for the building industry.

F. A. HUGHES & CO., LTD. (Row O, 253), exhibit their Triolin cellulose flooring for which the following claims are made: it is not a composition, is non-porous, contains no magnesite, will not oxidize or ignite from sparks. The cellulose constitution of Triolin combines great durability with a non-cracking flexibility. It has a smooth but non-slippery surface with a natural polish. It is unharmed by water, weak acids, alkalis or oil. Trio-Lincrusta is also shown. This is a washable wall covering with a strong, firm surface, and is made in a large range of designs and colours.

★

The joinery exhibited on the stand (Row F, 109) of BOULTON AND PAUL, LTD., in the main consists of standard doors, windows, gates, dresser, stairs and mouldings of the type extensively supplied for housing schemes and villas. Specimens of distinctive hardwood doors are shown to demonstrate the variety of the work manufactured. Estimates can be given for joinery to architect's details. All timber is seasoned in their own drying sheds, and all doors are morticed, tenoned and wedged together.

★

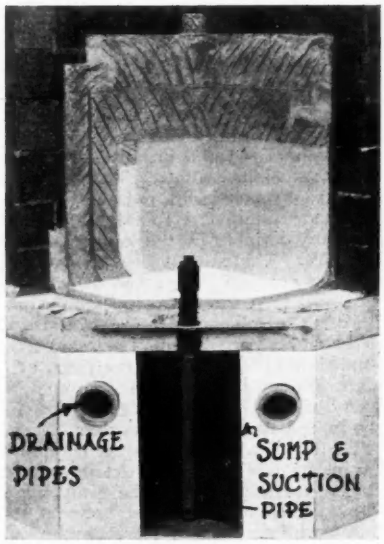
Models and tests are provided by KERNER-GREENWOOD & CO., LTD. (Row C, 42), to give proof of the effective protection against dampness which can be obtained by rendering walls with ordinary Portland cement and sand mortar, when these are mixed with a small proportion of Pudlo brand waterproofing powder. A wall of porous coke breeze concrete slabs is rendered, in two coats, to a stucco surface with sand and cement, waterproofed with Pudlo brand powder. A stream of water runs continually down the waterproofed cement surface the whole day long, and will run every day during the exhibition. This is a far more stringent test than any actual wall surface is likely to be called upon to withstand. The value of cement renderings waterproofed with Pudlo brand powder for the lining of water-containing structures is shown by a lily pool, actually built upon the floor of the exhibition hall. There are also model walls with renderings of waterproofed cement which serve as vertical damp-proof courses. Among many other interesting exhibits is a model showing how the renderings of waterproofed cement mortar are finished at the angles of the walls and at their junction with the floor to a basement in order to keep out flood water. The same principles of construction are followed when the renderings are used as internal linings to tanks or reservoirs.

★

On Stands 76 and 77, Row D, the UNITED STEEL COMPANIES, LTD., are exhibiting the products of various constituent companies, including: United Strip and Bar Mills, who specialize in ferro-concrete bars, plain, shaped, hooked or bundled, ready for fixing on site; Frodingham Iron and Steel Co., Ltd., makers of steel sections for constructional work, angles, beams, bulb angles, channels, flats, rounds, tees and zeds, also special sections for reinforced concrete flooring, and steel piling; Appleby Iron Co., Ltd., who exhibit steel plates; Samuel Fox & Co., Ltd., who make steel strip—cold-rolled, including stainless and non-corroding steel for shop-fitting and decoration.

★

To meet the growing tendency for cleanliness in the home and to ensure still greater economy in fuel consumption, SMITH AND WELLSTOOD, LTD. (Row L, 221), are displaying examples of their many popular lines. Excessive heat radiation from a coal cooker means an over-heated kitchen and a waste of fuel. Smith and Wellstood claim that a polished hot plate only radiates half the heat which a rough top plate radiates, and therefore there is a very considerable reduction in fuel consumption if the top plate is polished. The firm also claim that the enamelling of the body of a cooker also makes a marked difference in the heat radiation, resulting in a cleaner and cooler kitchen, and a further considerable saving in fuel consumption. Wellstood ranges and Columbian cookers are displayed in this new finish, and water-heaters of the Hydresse and Raydesse type are shown similarly finished. There is a big display of the Esse and



Kerner-Greenwood & Co.'s cellar-drainer, showing the manner in which the corner of a flooded cellar is treated. Water is collected into a sump underneath the floor which has a permanent suction pipe connected to a pump.

Chaudesse stoves. Samples of the Esse-Dura and Esse-Vista stoves will also attract attention, because these stoves are designed to burn any kind of solid fuel. The New Leader range and the Cow Brand portable boiler will interest those who are concerned in tenement property. A test of the last-named boiler, which burns coke or coal, is claimed to prove that one pennyworth of coal or smokeless coke will give as much heat as three-pennyworth of gas in a gas copper. Refuse of the house can be burnt in the Cow Brand copper.

*

Among the materials which THOMAS AND BISHOP, LTD. (Row C, 33), show on their stand are the following : Cling-surface belt and rope treatment in liquid and paste form, Permac metal-to-metal jointing material for joints of all kinds, Savac wire rope and metal treatment, Flexo grease, a lubricant manufactured in nine densities, also various types of lubricators, Flexo leather and textile belting, Flexo refractory cements " A," " B " and " C " for building, repairing and bonding all brickwork in furnaces and boilers, Flexo tinning compound which is claimed to clean and tin in one operation, " aXo " radiator liquid for all repairs to radiators, and Cowell's patent mortice locks.

*

THE MIDDLETON FIRECLAY CO. (Row E, 93), are manufacturers of glazed bricks, tiles, partition bricks, white glazed fireclay, and sanitary ware. They also exhibit terra-cotta, plain or vitreous, in white, cream, mottled or colours, glossy or matt finish. Samples of tiles, scum channelling, graduated coring, spittoons, etc., are also on view.

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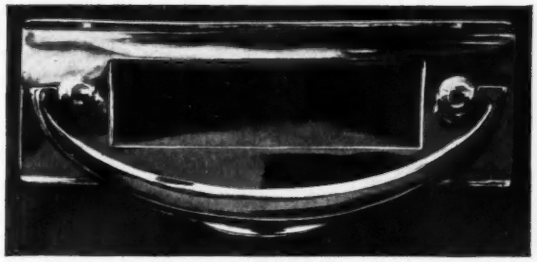
One of the principal exhibits of WILLIAM BRIGGS AND SONS, LTD. (Row L, 220), is a new product called T.U.F. (Tenax Untearable Felt). It is an underslating felt which is claimed to be not only untearable, but thoroughly waterproof and to act as a " second line roof." The application of the material is demonstrated on the roof of a kiosk in the stand. Briggs' Challenge composite flat roofing system is to be seen on an actual flat roof, showing the formation of the flashings and the finish at the eaves and verges. Briggs' anti-corrosive bituminous solutions are shown in their four colours—black, red, grey and green. As usual, Briggs' dampcourses, Aqualite, Plastique and Challenge, form a feature of the exhibit.

*

Among the exhibits on the stand (Row M, 225) of GOODLASS, WALL & CO., LTD., is their Swansdown superfine enamel, which they claim works freely and flows out well; dries hard in twenty-four hours, has great elasticity and is exceedingly durable on exterior or interior work. It is used on the Cunarders and other work throughout the world. The following advantages are claimed for other exhibits : Valspar varnish, which will not turn white, successfully withstands the boiling-water test; is unaffected by exposure to sun, rain or snow, and dries dust-free in a few hours. Combinol flat-drying oil paint, which is a fine wall finish for all interior decoration. Two coats only are necessary. Combinol hard-drying gloss paint, which possesses great hard-wearing properties for inside or outside work and dries hard overnight. Goodlass' Brustane, a semi-transparent stain which simply requires thinning with turpentine, is very easy to apply, and faithfully reproduces natural woods. Pintesco washable water paint, a genuine pigment water paint that is perfectly bound and only requires thinning with water. Several panels are shown demonstrating Goodlass' privet greens, and all shades of Goodlass' fast red, of which the firm are the originators; also Galoxide applied on new corrugated iron, and Sealapore coating on new Portland cement.

*

A door-knocker in Semprax, a new cast stainless steel.



Door, window and internal fittings in a new cast stainless steel, marketed under the name of Semprax, are outstanding features on the stand of NETTLEFOLD AND SONS, LTD. (Row H, 147). This steel is made by a new process, rendering it possible to cast practically any article which can be cast in brass. Fittings produced in Semprax have a brilliant mirror-like polish which, it is claimed, remains unaffected by weather conditions. They should be particularly suitable for public buildings, hospitals and offices, as well as private dwellings. Another interesting exhibit is the Nettleson friction pivot, now being used for school buildings by several education authorities in different parts of the country. J.B. window gearing, which has been supplied to many important public buildings, is shown in various types and finishes. This gearing, as well as panic bolts, a special rack bolt lock for banks, the Bardsley door spring and the Nettleson cleaning hinge for casement windows, are made in the firm's own works at Wolverhampton.

*

FRIGIDAIRE, LTD. (incorporated in Canada) (Row O, 257), exhibit the multiple system of refrigeration by means of which up to twenty-four cabinets can be operated by one compressor. The compressor is installed in the basement or any other convenient place. The firm claim that there are hundreds of thousands of residential flat tenants in seventy-eight countries receiving satisfactory refrigeration service from Frigidaire multiple refrigeration systems. When installed as a complete self-contained unit, the Frigidaire cabinet and compressor are both placed in the kitchen, pantry or larder. The compressor can be fitted in the base of the cabinet, or an enclosed compressor can be installed under the sink, or in any convenient position. The Frigidaire unit can be plugged into any convenient electric outlet. The new all porcelain Frigidaire cabinets are shown in a range of models from 4 to 18 cubic ft. These cabinets have an all porcelain exterior of silver-grey and white and with each the Frigidaire hydrator and cold control are standard. Frigidaire standard cold rooms, service cabinets, and wine coolers are also shown.

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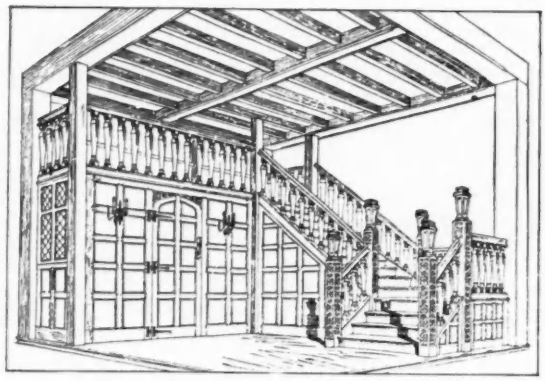
The 1930 exhibit of EASIWORK, LTD. (Row L, 216), should be inspected by all domestic architects and builders. Many housewives desire an Easiwork kitchen cabinet as part of the equipment of a labour-saving home. With the wide range of models now available, the designer of a kitchen can, it is claimed, by incorporating an Easiwork, add that extra efficiency obtainable only by large-scale organization and minute detail. Easiwork kitchen cabinets are being installed as standard equipment in houses selling from £475 upwards. One of the features of this year's Easiwork display is the exhibit of coloured kitchen suites which architects will find useful when making out original colour schemes. The suite consists of an Easiwork kitchen cabinet with extra storage units for all groceries and cooking requirements. A wireless loud-speaker is also incorporated. A modern sink with self-container, drainer and splash board; a gas range with many special features, an electrical refrigerator, and a china dresser, table and chair to match if desired. The suite is supplied in cream, green, blue or white.

*

Special features on the stand of J. H. SANKEY AND SON, LTD. (Row O, 261), are : Sankey's Pyruma plastic fire cement, the modern firebrick bond, for setting and repairing all kinds of firebrick structures. Pyruma, it is claimed, sets as hard as



A Frigidaire cabinet.



The stand of Messrs. John Sadd and Sons, Ltd.

Portland cement with or without heat, and resists high and intermittent temperatures without cracking or crumbling away. The New Improved Sankey down-draught preventing pot, a scientifically built and tested chimney-pot which traps the wind blowing from any direction. Fosalsil Moler insulating partition blocks, which provide the utmost insulation against heat, cold and sound. Sankmar, a plastic paint, is also exhibited.

*

The POWELL DUFFRYN STEAM COAL COMPANY, LIMITED (Row D, Stand 49) (sole vendors: Stephenson Clarke and Associated Companies, Ltd.), exhibit Presotim for all classes of wood and furniture. This is a British coal-tar product which is claimed to penetrate to the heart of the wood, thereby preventing decay. It colours the surface and displays the natural grain of the timber. Presomet, a bituminous black paint, is applied to any surface to protect metalwork against rust and corrosion. It is claimed to be acid proof and not to blister or peel off when exposed to the elements. Clay goods exhibited include salt-glazed stoneware pipes and fittings, 2 ins. to 18 ins. diameter, salt-glazed stoneware yard and street gullies up to 18 ins. diameter, buff chimney-pots of various designs and sizes, fireclay flue linings, burrs and slabs of various sizes, firebricks and common building bricks, pressed and wirecut.

*

The exhibit of JOHN SADD AND SONS, LTD. (Row N, Stand 234), takes the form of a faithful reproduction of a Jacobean hall and staircase in English oak. The woodwork is Essex grown oak, selected, and constructed in their Maldon shops. The panelling is framed and tenoned together by means of oak dowels. The electric light fittings have been specially designed to be in harmony with the surroundings, but of course, carrying "lights in bottles" (as the electric light was first described) instead of candles. These fittings have been made by Falk, Stadelmann & Co. The leaded lights are the work of Kent, Blaxill & Co., Ltd., of Colchester. The stand and fittings were designed by Mr. George Coles, F.R.I.B.A. Messrs. Sadd and Sons have been converting English oak at Maldon for over one hundred years.

*

The stand of CANDY & CO., LTD. (Row H, 150), is in the form of a pavilion, in which exterior faience, glazed roof tiles, wall tiling and paving stones are incorporated. Inside are exhibited their Devon fires in various designs and colours. These briquette tile fireplaces can be had with or without a wood mantel, and it is claimed that there are over 100 different styles of Devon fire and 500 different colours. Samples of Wescontree ware are also on view.

*

OSTENS (BYFLEET), LTD., on their Stand 30 (Gallery), exhibit their Servway, a serving hatch so designed that the opening of one side automatically locks the other. It is claimed that it is impossible to see or overhear from kitchen to dining-room, and that there is no possibility of draughts or the infiltration of cooking odours. It saves walking, and serves food "oven-hot." The hatch is lined with Silveroid stainless metal. It is made in various distinctive styles to harmonize with different interiors, and can be used as a carving table and emergency safe.

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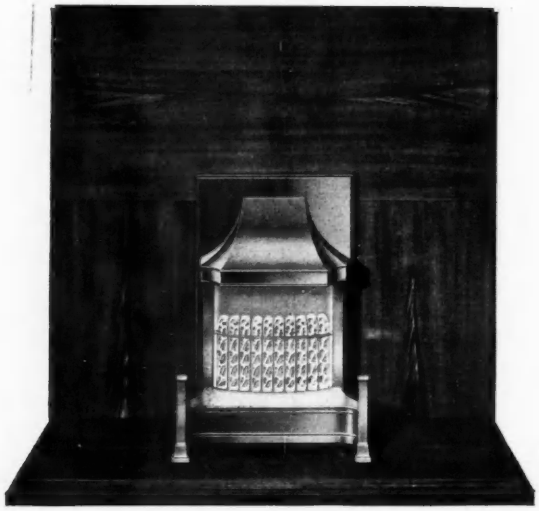
J. GLIKSTEN AND SON, LTD. (Row E, 92), are specialists in thoroughly seasoned hardwoods of all descriptions, specially selected for the building trades; and hold one of the largest and choicest stocks in Great Britain. They exhibit various classes of mahogany, oak, walnut, teak, whitewood, etc., among which is a log of Cuba mahogany of exceptional quality and size. Their subsidiary companies are the National Plywood Corporation, Ltd.: specialists in plywood of every description for the building trades, who display sample sheets of various qualities taken at random from their vast and comprehensive stock. Gliksten Doors, Ltd., specialists in Columbian pine and Swedish redwood doors, show a range of Gliksten doors, union label. Messrs. Gliksten are sole distributors for Great Britain and Ireland of B.P., the all-British insulating board, the material for all forms of insulation and accoustical correction.

*

THE DAVIS GAS STOVE CO. (Row O, 268) have on view four complete gas fire settings —two of which are connected with gas and shown as if *in situ* in the apartment. Other exhibits include geysers, some connected; a complete kitchen suite, with Nautilus coke boiler and gas cooker; coke boilers, together with wash coppers; Nautilus coal grate in complete setting; cast concrete Economy flue block; and Marblate gas suites.



A Devon fire



A Davis gas fire.

OFFICIAL ARCHITECTURE

The Debate at Olympia

FOLLOWING is a report of some of the speeches made during the debate at Olympia on "Official Architecture." The debate was held under the auspices of the Association of Architects, Surveyors and Technical Assistants, and under the chairmanship of the Rt. Hon. Lord Riddell. The principal speakers were Mr. R. Wynn Owen, F.R.I.B.A. (architect, L.M.S. Railway), who moved " That the cause of architecture was served equally by the official architect and the private practitioner "; and Mr. H. V. Lanchester, who opposed the resolution. A report of the speeches made by Messrs. Wynn Owen and Lanchester appeared in our last issue.

Control of Territory Necessary

Mr. V. L. Nash, A.R.I.B.A., in support of the motion, said he was glad that Mr. Owen had made the necessary premise that official architects and private practitioners started from the same mark as regards training and competence, because that was a point which was frequently overlooked in discussions on the subject.

They start, he said, by saying that architecture is the most noble pursuit; they go on to say that the quality of a nation's architecture has a direct bearing on the quality of that nation's culture, and they give one to understand that on the part of many architects there is a passionate desire to see this country beautified. They give one the impression that they are architects first and men afterwards, and that they are better men afterwards for it.

Architecture is the most important thing in the world, and one wonders sometimes if this sentiment is not in fact an over-statement of the case. If you consider London today, you have slums still in existence, you have speculative builders erecting increasing quantities of badly designed houses, you have a traffic muddle, and in the rural areas you have a complete and increasing degradation, until you really ask yourself whether architects are really so passionately keen on this beautiful England they talk of. It begins to strike one that this sort of thing can be perfect, and we know that the future can hold a much more beautiful England, because we think we have laid our finger on the cause of the chaos which is to be seen about today.

Most people will agree that what we essentially need today is some sort of control. It seems absurd to suggest that we as a civilized nation should continue to sit still while people propagate ugliness. It is only too true to say that, as a mass and speaking architecturally, we are an ignorant nation. We cannot expect much from the public. We want to control not only elevations to streets, but we need to control whole towns, whole tracts of territory. The freedom of the official architect with his own designs was certainly equal to that exercised by the private practitioner. The former had to observe economy, and this he did to the credit of his buildings; the simpler the building the better the style of architecture. After all, the one thing that appalled them about the jerry-builder's houses was the encyclopædic lack of knowledge displayed.

Therefore, from this point of view there was a purer style, a more economic, a secondary architectural style being evolved from the office of the official architect than there was generally among private practitioners. Again, there was a quite definite cleanness and economy of motives in most of the works done by the Office of Works. To all real lovers of architecture he would suggest that they must feel that the type of architecture which was being produced by the official architect today was more clean, more rational, and more applicable to the standards of today than that produced by the private practising architect. To his mind, the private practice was largely gained through patronage.

Competition System Invaluable

Mr. H. D. Searles-Wood, F.R.I.B.A., opposing the resolution, said the leading article in *The Times* the previous week said the present-day ideas about the Civil Servant or other public official fluctuated between wide extremes. Some saw him as an efficient and far-sighted bureaucrat, quietly but ruthlessly gathering into his own hands all the threads of power. To others, or to the same people at other times, he appeared as a presumably well-meaning gentleman, floundering helplessly, a modern Laocoon, in strangling coils of red tape. But even an official should not be condemned unheard; if he were encouraged to speak, he might have quite a lot to say in his own excuse.

He would point out with truth that he could no more apply the same simplicity and light-heartedness to the conduct of public business than the private architect did in his practice. That he must, at all times, be ready and able to render an exact account of his stewardship and to give a full explanation of all that he had done or refrained from doing, not only to his superior officers but also, through them, to their master and his—the public. He must, even at some sacrifice of force and speed, put safety first. Hence detailed entries of receipt and dispatch, scientific filing, well-planned storage, full record of conversations, conferences and the why and wherefore of decisions—in fact, red tape. Therein lay the little tragedy—the machine waged its secular warfare against the spirit which gave it being. It did its best to mechanize the man. But there could be no doubt that for such buildings as post offices, barracks, prisons, railway stations, etc., where the special planning was constantly under revision and improvement, the official architect was in a very strong position with the accumulated experience and funds of information which were only to a limited extent available to the private architect.

He said he had a great appreciation of the official architect and the work he had done, but he supported Mr. Lanchester from the educational point of view. He thought that the competition system was a most valuable means of letting the private architect come into his proper position.

Official Architecture Justified

Mr. Sydney Perks, F.R.I.B.A., said he resented very strongly the slur often hurled at official architects that they did not do their own work. As far as his own experience went that was not true. He said he had served three years on a committee dealing with this most difficult matter, and the report that had been compiled was of intense interest, but although it had been presented to the Council of the R.I.B.A., they had not seen fit to print it. He thought that if the R.I.B.A. would print the report it would be a very good thing.

Mr. R. Coppock, J.P., L.C.C. (general secretary, N.F.B.T.O.), said he felt there was a considerable weight on the side of the official architect, especially in the way of providing the details, because the people who were responsible for him were desirous of seeing the job go with a swing, and in the main the details requisite for the building were executed with greater precision than by the individual architect. He said by profession he was a bricklayer, hence he knew the difficulties of waiting for details. The services rendered by both categories were quite good, but he did not know why the official architect should not stand on the same plane as the individual architect: both had created abortions and both had created magnificent buildings. It was true that the public were swayed by names, and it was equally true to say that the individual architect who got the name was so loaded with work that it was impossible to apply his particular skill on the work that was loaded upon him. It was not

so with the official architect, because he was responsible usually to a committee. If it was a municipality, its representatives were interested in the æsthetics of their town. There was something in a municipality that was not always in a private company. It was quite possible that it would be said that they were not spending their own money, but they were desirous of improving the town or city; but if it was a private company, they were desirous of putting up a building which would create attraction. None could say that the Imperial Chemical Industries building had deteriorated as a consequence of an official architect being employed. To his mind it was a magnificent structure. He thought that some of their best men had been compelled to take over official architectural positions because very few architects were good business men, and they were compelled as a consequence to take refuge where they need not become a commercial traveller, and where they could develop their art and their desires in a bigger and more satisfying way. Broadly speaking, architecture today was saddled to machinery.

The Influence of Machine Production

Machine production was determining a new type of architecture, and the individual architect had not got the opportunity, as a consequence of his training, to fit himself to the new machine productions that were at his disposal. He was pleased to open one of the technical journals that morning and see a wonderful perspective of the new cathedral in Liverpool; but let them remember this, that machine production was making standardization in the building trade a certainty. Therefore, there was little or no difference in the status of the official architect and the individual architect. He knew of buildings that had been erected by official architects whose standing was quite equal to the individual architect. There were bound to be men of outstanding ability that one could not associate with either official or individual work. He felt that for service the official architect gave equal service with the individual architect. There was a tendency amongst companies to employ their own architect and building staffs, not that it was cheaper, but that they were more mobile: the whole thing depended entirely upon the economic position.

After some further discussion, Mr. Lanchester said he had directed his argument not to the comparative merits of the official or individual architect at all, but to the ultimate tendency of the two systems. It seemed to him that the extension of the official system did make very markedly for a diminution in the progress of architecture, because, as he had said, competition was absolutely necessary. He personally had found architecture a very amusing job as a free-lance, and he would be very unwilling to exchange that position as a free-lance for a position in which he would be established for life in a definite function; but that might be a matter of personal temperament. It did seem to him that if architecture was made an official function and the individual architect was thereby extinguished then the inevitable result would be stagnation. His own experience of public and official bodies had been that once they had established a routine method of design they were difficult to move. It seemed to him that it would be found to slow down progress in architecture if the independent architect was eliminated and the official architect substituted in his place. In conclusion, he reiterated that his argument was solely directed to the tendency that would be produced by the establishment of architecture as an official function instead of allowing a large proportion of it to be carried out by competitive and independent methods.

Mr. Wynn Owen said it seemed to him that Mr. Lanchester had inferred that the successful architect should have the spur as a reward. If a man was a keen architect it should not make the slightest difference to his effort. Personally, it did not make the slightest difference to him; if he got a job and he was interested in it the idea of remuneration or reward did not affect him in the slightest degree. Reference had been made to the fact that an official architect when he attains to an official position becomes so submerged with the business side that he has no time to attend to his work. That state of affairs he knew could apply to the private practitioner.

With regard to the competition system, in his experience as a private practitioner he entered whole-heartedly into it because he felt it was the only means by which a young man could get a job.

Continuing, Mr. Owen said, as a last word, he would like to remind all architects, whether they be official architects or private practitioners, that as architects they were professional brethren worshipping at the same shrine, serving the same mistress, and whatever view they might take of each other, in the long run, in the words of Kipling:

> Only the Master shall praise us,
> and only the Master shall blame.
> But each for the joy of the working,
> and each, in his separate star,
> Shall draw the thing as he sees it for
> the God of Things as they are.

At this juncture the resolution was put to the meeting and was carried by a small majority.

Mr. Hamlyn, A.R.I.B.A., President of the A.A.S.T.A., said that before he formally moved a vote of thanks to the chairman, he would take the opportunity of making a few references to the association, which, with the help of Mr. Montgomery, had arranged the meeting. For many years, he said, the A.A.S.T.A. had been studying a problem which had become a vital one in the profession of architecture, e.g. the increasing employment of architects upon a salaried and official basis. Among the older institutions, this rapid development had, until recently, been neglected, but during the past two years a more energetic and constructive view had been taken, and, mainly through the efforts of the A.A.S.T.A., machinery had been inaugurated to deal with the problem. One of the main units in that machinery was the Salaried Members Committee of the R.I.B.A. One of the Association's principal aims was to encourage co-operation, and it was with that object in view that the meeting had been held. They hoped that by a free discussion of official architecture something would emerge whereby an agreed policy could be arrived at. They were convinced that no satisfactory result could be found under the present antagonistic conditions. He trusted that the meeting would set an example of how to tackle their problems, and that in future a frank and open discussion among those concerned would ensue rather than a prolonged bickering from behind "party walls."

Mr. Hamlyn said he now came to the most pleasant part of his duty—to propose a vote of thanks to the chairman; and he would like him to understand that on no occasion had a vote of thanks been proposed with greater sincerity. They were fortunate in having in the chairman a layman who was also an Honorary Associate of the R.I.B.A. He trusted that this would not be the last of his Association's activities at which Lord Riddell would give the stimulating support of his presence.

More Official Architecture

A writer in *The Sheffield Telegraph*, discussing the proposed erection of Government buildings on the Calton Jail site, Edinburgh, says: "We wonder what special fee, or whether any special fee, is being paid by the Government to those officials in the Office of Works who made the plans.

"According to the City Council *Year Book*, the City Architect's salary is £1,250 a year. It is a substantial salary, though we cannot say that he is overpaid considering the vast amount of work the Corporation is piling on to him. We should not like to say that even the £1,750 he will receive during the next two years (£1,250 salary plus

£500 special fee) is more than the work he is doing is worth. Nor are we among the critics of his design. On the contrary, we regard it as a sound and effective piece of work.

"But we are not at all impressed with the arrangement that has been made nor with the attitude adopted by the City Council. If the City Architect is to receive a fee for his plans, his design should have been placed in competition with those of other architects. If, on the other hand, he was instructed to make the plans as part of the ordinary work of his office, then it seems difficult to justify the extra fee."

DIRECT LABOUR

A WARNING that the Sheffield Direct Labour Department was being asked to do a vast amount of work, without any responsible head, was uttered by Councillor Arthur Neal at a recent meeting of the Sheffield Education Committee during a discussion on the erection of the proposed council school at Ben Lane, Wadsley. The Buildings Sub-committee recommended that the Direct Labour Department be entrusted with the building of the school, but an amendment referring the matter back, with a view to private tenders being invited, was defeated by 16 votes to 11.

Councillor Arthur Neal said he had never opposed direct labour, but if anything could induce him to do so it was the change of policy that had now been seen. If they had not competitive tenders, how could it be known whether or no the city was saving money? "We are simply asked," he said, "to hand over nearly £17,000, as a first instalment of £51,000, without the least idea whether or not that is a reasonable price." No business man would listen to any proposition of that kind.

"We are loading this department with a vast amount of work without any responsible head at all. Of course, I don't for one moment suggest that in the City Architect we have not got a most competent and excellent official, but he is an architect and not a builder, and between the two there is a great gap. If we are to put on to that department work at the present rate, it seems imperative that we should have a competent manager in that department, as we have in other departments."

[The above report has been taken from *The Sheffield Telegraph*.]

ARCHITECTS' WILLS

Mr. Frank Herbert Gorst, of Blackpool, Lancs., architect and surveyor, left £17,941, net personalty £11,796.

Mr. Samuel Wesley Bradshaw, L.R.I.B.A., of Moston Lane, Blackley, left £4,125, net personalty £3,761.

LAW REPORT

ALLEGED MISREPRESENTATION

Vineberg and Wife v. *Smelt. Chancery Division. Before Mr. Justice Bennett*

IN this case Mr. and Mrs. David Vineberg, sued Mr. Henry T. Smelt, builder, of Wickham, Durham, for the rescission of an agreement, and they sought an order for the reconveyance to defendant of property purchased by the plaintiffs and for repayment of £1,325. In the alternative, plaintiffs asked for damages for alleged misrepresentation. Defendant denied misrepresentation, and repudiated plaintiffs' allegations.

Mr. Turner Samuels, for the plaintiffs, said in December, 1928, his clients purchased a shop and dwelling-house at the corner of Hadrian Road and Baxter Avenue, Newcastle-on-Tyne, part of the Milvain Estate. Plaintiffs were assured by the defendant that no other shop would be built on the estate, and that they would have it all to themselves. The plaintiffs paid £1,325 for premises. Later, plaintiffs alleged, defendant erected another shop next door, and the result was that plaintiffs suffered considerable damage. Plaintiffs observed, by the completion of the sale to him, that defendant had put in an iron girder in the adjoining house, and he mentioned it to defendant and defendant assured him that it was not his intention to erect another shop next door. Without the plaintiffs' knowledge, and a few days before the completion of the purchase, defendant, said counsel, went to the Town Council and had the plan of the estate altered to include a shop on the piece of land adjoining plaintiffs' premises. The shop had been erected, and was now occupied by people who traded in articles similar to plaintiffs.

Mr. and Mrs. Vineberg gave evidence, and stated that defendant assured them that no other shop would be erected within a radius of three or four hundred yards of their premises.

Defendant denied that he ever gave the plaintiffs any such assurance as they alleged. He produced notice boards which he said he exhibited on the site adjoining plaintiffs, which said that a house or house and shop could be erected on the site to suit a purchaser.

His lordship, in giving judgment, said to his mind plaintiffs had failed to establish the warranties on which they relied. The evidence all had relation to conversations which occurred two years ago. He made no reflection on the witnesses, but he held the opinion that people could easily be mistaken or have imperfect recollection about what happened, or was said, all that time ago. Plaintiffs put forward a plan which they said was shown them when they decided to purchase, and which showed that the building to be erected next door would only be a dwelling house. He (his lordship) came to the conclusion that when the defendant showed the plaintiffs the plan he did not intend to make any such representation in respect to the building to go up adjoining the plaintiffs'. The defendant's denials that he gave the assurance relied upon by the plaintiffs was corroborated by the evidence of his daughter, who had heard the conversations that took place prior to the making of the contract. He therefore accepted the defendant's evidence as to what happened when the contract was made.

His lordship added that the suggested warranty that plaintiffs would have the place all to themselves was too vague to avail the plaintiffs in their claim. With regard to the notice boards, he was of opinion that the announcements that the plot next to the plaintiffs' would contain a shop and house were placed for everybody to see in October, 1928, which was some months before the completion of the purchase by the plaintiffs. He therefore dismissed the plaintiffs' action with costs.

SOCIETIES AND INSTITUTIONS

SMOKE ABATEMENT

THE annual conference of the National Smoke Abatement Society was held at Leicester last week.

Striking instances of atmospheric pollution over great distances by industrial areas were given by Mr. M. G. Bennett, assistant superintendent of the Meteorological Office of the Air Ministry, who said that observations at Falkirk showed that a wind from any of the directions in which industrial areas were situated would reduce visibility from a calculated 250 miles to 20 miles.

Mr. F. Entwistle, superintendent of the aviation services division of the Meteorological Office, pointed out that if all smoke could be removed from this country many more flying days per year would be possible. Pilots flying between Scotland and the South of England frequently encountered smoke haze from the Black Country when over Southern Yorkshire. On the London–Continental route an appreciable haze due to the smoke of London was met with over the Channel some miles from the Kent coast. With easterly winds, smoke haze from the industrial districts of Germany was carried over Southern England.

Smoke, Mr. Entwistle said, raised important problems in connection with the selection of sites for municipal and

other aerodromes, particularly in the vicinity of industrial areas. Other factors being equal, the aerodrome should always be placed on the side of the town from which the prevailing wind blew—usually the west or south-west.

Mr. Arnold Marsh, secretary of the society, said that smoke was causing a wastage of £150 every minute in material values, but there was the even greater question of its effect upon public health. The society was not without hope of an England with pure, clean air and a real warm sun.

Dr. Margaret Fishenden, D.SC., F.INST.P., of the Department of Scientific and Industrial Research, discussed recent investigations in connection with various classes of fuels, both for industrial and domestic purposes.

Mrs. Millicent Jast, of Manchester, dealt with the question from the domestic point of view, emphasizing the vast amount of toil which was inflicted upon the housewife in consequence of smoke in the atmosphere.

Dr. C. Killick Millard, Medical Officer of Health for Leicester, said that it was impossible to exaggerate the importance of and the need for scientific research. Research which had already been carried out showed that one way to economy and reform was the substitution of some form of solid smokeless fuel for raw coal.

PRIZES FOR SECONDARY SCHOOLS

The Council of the R.I.B.A. has decided to increase the annual value of the R.I.B.A. prizes for secondary schools from £5 to £10 10s.

The prizes are offered annually by the R.I.B.A. for competition between boys and girls in secondary schools, and are intended to encourage interest in architecture.

R.I.B.A. (ARCHIBALD DAWNAY) SCHOLARSHIPS, 1930–31

In accordance with the terms of the will of the late Sir Archibald Dawnay, the R.I.B.A. have awarded one scholarship of £75 for the academical year 1930–31 to Mr. J. A. Pinckheard, of the Department of Architecture, Surveying and Building of the Northern Polytechnic, London, N., and one scholarship of £50 for the academical year 1930–31 to Mr. Arthur Roberts, of the Liverpool School of Architecture, University of Liverpool.

Mr. F. J. M. Ormrod, of the Liverpool School of Architecture, University of Liverpool, who was awarded a scholarship of £75 for the academical year 1929–30, and Mr. J. P. Ward, of the Welsh School of Architecture, the Technical College, Cardiff, who was awarded a scholarship of £50 for the academical year 1929–30, have been granted renewals of their scholarships for the year 1930–31.

The scholarships are intended to foster the advanced study of construction, and the improvement generally of constructional methods and materials and their influence on design.

R.I.B.A. EXAMINATIONS

Following are the dates on which the R.I.B.A. Examinations are to be held :

Intermediate Examination : November 21, 22, 24, 25 and 27, 1930 (last day for receiving applications : October 7, 1930); June 5, 6, 8, 9 and 11, 1931 (last day for receiving applications : May 5, 1931); November 20, 21, 23, 24 and 26, 1931 (last day for receiving applications : October 20, 1931).

Final Examination : December 3, 4, 5, 6, 8, 9, 10 and 11, 1930 (last day for receiving applications : November 3, 1930); July 8, 9, 10, 11, 13, 14 and 16, 1931 (last day for receiving applications : June 8, 1931); December 2, 3, 4, 5, 7, 8 and 10, 1931 (last day for receiving applications : November 2, 1931).

Special Examination : December 3, 4, 5, 6, 8 and 9, 1930 (last day for receiving applications : November 3, 1930); July 8, 9, 10, 11, 13 and 14, 1931 (last day for receiving applications : June 8, 1931); December 2, 3, 4, 5, 7 and 8, 1931 (last day for receiving applications : November 2, 1931).

Special Examination in Design for former Members of the Society of Architects : December 3, 4, 5, 6 and 8, 1930 (last day for receiving applications : November 3, 1930); July 8, 9, 10, 11 and 13, 1931 (last day for receiving applications : June 8, 1931); December 2, 3, 4, 5 and 7, 1931 (last day for receiving applications : November 2, 1931).

Special Examination of Licentiates to qualify as Fellows : November 17, 18, 19, 20 and 21, 1930 (last day for receiving applications : October 17, 1930); April 20, 21, 22, 23 and 24, 1931 (last day for receiving applications : March 20, 1931); November 16, 17, 18, 19 and 20, 1931 (last day for receiving applications : October 16, 1931).

Statutory Examination for District Surveyor and the Examination for Building Surveyor : October 15, 16 and 17, 1930 (last day for receiving applications : September 24, 1930); May 6, 7 and 8, 1931 (last day for receiving applications : April 15, 1931); October 14, 15, and 16, 1931 (last day for receiving applications : September 23, 1931).

Town Planning Examination : June 24, 25, 26 and 29, 1931 (last day for receiving applications : March 2, 1931).

UNIVERSITY OF LONDON LECTURES

A varied and interesting programme of University Extension Lectures for the coming Session has just been issued by the University of London, South Kensington. Courses will be delivered not only in the City, but also at over fifty local centres in different parts of London and the suburbs, and the subjects cover a wide range. Among the lecturers who will be delivering courses are : Dr. A. Compton-Rickett, Sir Banister Fletcher, P.R.I.B.A., Professor E. A. Gardner, Mr. C. E. M. Joad, Rev. Father McNabb, Sir John Marriott, The Master of the Temple, and Professor D. M. S. Watson.

COMPETITIONS OPEN

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invites architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor : A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs : October 20.

October 30.—The General Building Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums : £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs : October 30.

November 30.—The Burton-on-Trent Local Education Authority invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor : H. T. Buckland, F.R.I.B.A. Premiums : £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs : November 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young

Communist Square), and will contain a mass musical stage and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

February 1.—The Norwich Corporation invite architects practising in Norwich and in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, OCTOBER 1

HOUSING AND HEALTH EXHIBITION, Kelvin Hall, Glasgow. Until October 18. 10 a.m. to 10 p.m. **10 a.m.**

INSTITUTION OF SANITARY ENGINEERS, 120 Victoria Street, S.W.1. Opening Sessional Meeting, to be held at the Cabins Restaurant, Caxton House, Tothill Street, S.W.1. Reception, 7.30 p.m. **7.30 p.m.**

BURTON-ON-TRENT SCHOOL COMPETITION. Latest date for submission of designs.

THURSDAY, OCTOBER 2

ROYAL ACADEMY, Burlington House, S.W.1. First of a series of ten lectures on "Anatomy." By Professor Arthur Thompson, F.R.C.S., LL.D. **4.30 p.m.**

FRIDAY, OCTOBER 3

TOWN PLANNING INSTITUTE. Twelfth Annual Country Meeting, to be held at Leicester. Until October 5, under the presidency of F. W. Platt, F.S.I. The inaugural meeting will be held in the Council Chamber of the Town Hall, by invitation of the Lord Mayor (Councillor W. E. Hincks, O.B.E., J.P.) and Corporation of Leicester. An address will be given on the "Development of the City, Historically and otherwise," by H. A. Pritchard, followed by a paper on the "Town Planning of Leicester and its Surroundings," by A. T. Gooseman, M.INST.C.E., M.T.P.I.

SATURDAY, OCTOBER 4

Sunrise, 7.4 a.m. Sunset, 6.53 p.m.

TOWN PLANNING INSTITUTE. Twelfth annual county meeting at Leicester. Institute Dinner to be held at the Bell Hotel.

MONDAY, OCTOBER 6

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Commencement of Winter Term.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Motor Coach Excursion: Special Visit to Greenhithe Cement Works. Leave Portland House, Tothill Street, Westminster, S.W.1, at 1.45 p.m. Tickets obtainable from the Secretary of the Society. **1.45 p.m.**

WELSH SCHOOL OF ARCHITECTURE, Technical College, Cardiff. Commencement of School Year.

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Commencement of Smoke Inspectors' Course. **6 p.m.**

TUESDAY, OCTOBER 7

R.I.B.A., 9 Conduit Street, W.1. Closing date for applications for admission to the Intermediate Examination.

THURSDAY, OCTOBER 9

C.P.R.E. Third Annual Conference, to be held at Welwyn Garden City. Until October 11. Among the papers to be read are the following: "The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields." By Sir Lawrence Chubb. "Town and Regional Planning in their Relation to the Objects of the C.P.R.E." By Sir Theodore Chambers, K.B.E., F.S.I. "Education and Citizenship in their Relation to the Safeguarding of the Countryside, etc.," and "Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds." Each paper will be open to discussion.

INSTITUTION OF WELDING ENGINEERS. At the Engineers' Club, Manchester. "The Training of Operatives in the Welding and Cutting Industries." By J. Ryder.

FRIDAY, OCTOBER 10

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Sessional Meeting to be held at the Guildhall, Nottingham. Welcome by Councillor E. H. Lee, Chairman of the Health Committee, followed by tea, 4 p.m. A Discussion will take place on "River Pollution," to be opened by Alderman A. R. Atkey, J.P. 4.30 p.m. Chairman: Charles Porter, M.D., B.SC., etc. **4 p.m.**

SATURDAY, OCTOBER 11

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Meet at the Guildhall, Nottingham, at 9.15 a.m. for visits to the Factory and Welfare Department of Boots Pure Drug Company, Ltd. Followed by an inspection of the New Council House at 11.30 a.m. **9.15 a.m.**

THURSDAY, OCTOBER 16

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to Cement Marketing Company's Laboratory, Portland House, Tothill Street, Westminster, S.W.1. (Party limited to 30.) **7 p.m.**

MONDAY, OCTOBER 20

BIRMINGHAM WELFARE CENTRES COMPETITION. Latest date for submission of designs.

TUESDAY, OCTOBER 21

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Art." By Gui St. Bernard. **8 p.m.**

WEDNESDAY, OCTOBER 22

INSTITUTE OF FUEL. Annual Conference to be held at the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2, until October 23. Evening: Annual Dinner to be held at the Connaught Rooms, Great Queen Street, W.C.2, at 6.45 p.m.

THURSDAY, OCTOBER 23

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by T. J. Clark, A.I.STRUCT.E., of the British Portland Cement Association. **7.30 p.m.**

SATURDAY, OCTOBER 25

Sunrise, 6.40 a.m. Sunset, 4.48 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the works of Messrs. Johnson, Dartford. **2 p.m.**

TUESDAY, OCTOBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "English Ironwork." By Edward Yates. **7 p.m.**

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Architecture: the Citizen's Part." By Clough Williams-Ellis, F.R.I.B.A. **8 p.m.**

THURSDAY, OCTOBER 30

BURTON-ON-TRENT COUNCIL SCHOOL COMPETITION. Latest date for submission of designs.

TUESDAY, NOVEMBER 4

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Industry." By Sir Walter Layton, C.H. **8 p.m.**

THURSDAY, NOVEMBER 6

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Building: its Sculpture and Painting." By Professor E. S. Prior. (Lantern Illustrations.) **5.30 p.m.**

TUESDAY, NOVEMBER 11

MORLEY COLLEGE, Westminster Bridge Road. S.E.1. "Life and the Countryside." By J. W. Robertson Scott. **8 p.m.**

WEDNESDAY, NOVEMBER 12

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

THURSDAY, NOVEMBER 13

ROYAL ACADEMY, Burlington House, W.1. "Modern Pigments: Their Proper Selection and Use." By A. P. Laurie, D.SC. **4 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwel Road, South Kensington, S.W.7. Lecture Theatre, "English Mediæval Painting." By W. G. Constable, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 14

ROYAL ACADEMY, Burlington House, W.1. "Painting Media: Oils, Varnishes and Tempera." By A. P. Laurie, D.SC. **4 p.m.**

SATURDAY, NOVEMBER 15

Sunrise, 7.16 a.m. Sunset, 4.12 p.m.

MONDAY, NOVEMBER 17

ROYAL ACADEMY, Burlington House, W.1. "Methods of Wall Paintings." By A. P. Laurie, D.SC. **4 p.m.**

TUESDAY, NOVEMBER 18

ROYAL ACADEMY, Burlington House, W.1. "The Theory of Colour and its Application to Painting." By A. P. Laurie, D.SC. **4 p.m.**

WEDNESDAY, NOVEMBER 19

ROYAL ACADEMY, Burlington House, W.1. "Early Methods of Oil Painting." By A. P. Laurie, D.SC. **4 p.m.**

THURSDAY, NOVEMBER 20

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre: "English Alabaster Carvings." By W. L. Hildburgh, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 21

R.I.B.A., 9 Conduit Street. W.1. Intermediate Examination. Until November 27.

SATURDAY, NOVEMBER 22

Sunrise, 7.28 a.m. Sunset, 4.3 p.m.

TUESDAY, NOVEMBER 25

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, W.1. "The Construction of a Great Exhibition." By W. T. Bowman, O.B.E., F.I.A.A., M.I.STRUCT.E. Chairman: Sir William Crawford, K.B.E. **7 p.m.**

THURSDAY, NOVEMBER 27

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. At the Showroom of W. T. Lamb and Sons, 43 Shoe Lane, E.C.4. "Bricks and Tiles." By E. Valser. **7 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Sculpture." By Arthur Gardner. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, W.1. Fifth Annual Banquet to be held at the Stationers' Hall, City, E.C.

SATURDAY, NOVEMBER 29

Sunrise, 7.40 a.m. Sunset, 3.56 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the Works of Messrs. W. T. Lamb and Sons, Worcester Park. **2 p.m.**

HOLOPHANE CONFERENCE

A conference of architects arranged by Messrs. Holophane was held at the company's conference hall, in Elverton Street, Westminster, on Wednesday last, at which Mr. H. Thompson, in his address of welcome to the visitors, made a strong plea for closer and more timely co-operation between the architect and the illuminating engineer in the preparation of artificial lighting schemes.

The papers read during the morning session were : "Developments in Artificial Illumination," by Mr. J. S. Dow, editor of *The Illuminating Engineer* ; "Holophane Policy," by Mr. W. T. Dean; "Holophane Developments," by Mr. E. Stroud; "Glass and its Properties," by Dr. S. English; and "Practical Applications of Holophane," by Mr. L. M. Tye.

Mr. R. G. Williams opened the afternoon session with a remarkable demonstration of colour as applied to lighting, after which he delivered a paper on "Cinema and Theatre Lighting." The concluding papers were "Ancient Lights,—and Ultra Violet Ray Glass," by Dr. S. English; and "Industrial Lighting," by Mr. L. M. Tye.

The conference gave rise to many expressions of appreciation from the visitors, among whom were several architects from the provinces, of the great value to the profession of the research work in which the technical experts of the company were continually engaged.

Mr. R. G. Williams, in his paper on "Cinema and Theatre Lighting," said that the fundamental fact to be grasped when considering colour lighting, in any of its applications, was that white light was the optical result of a combination of light rays of such wave lengths as corresponded to the colours seen in the spectrum. Because colour was essentially optical, the apparent colour of an object was largely influenced by a number of factors. First among these was the colour of the light under which the object was seen. Secondly, the colour of an object was influenced by the colours of other objects in its close vicinity—this factor being named "colour contrast." Thirdly, the intensity of the light und r which an object was seen affected the colour. Fourthly, there was the factor of simultaneous contrast which dealt with the after images held by the eye when looking from one colour to another quickly.

The human eye was accustomed to operating under white light—which was a combination of the colours of the spectrum. If the eye was exposed to light of some unusual colour—say pure red or green light—there would be a corresponding reaction. This reaction was not only psychological but physiological. For the purposes of entertainment, therefore, there were vast potentialities in the skilful use of coloured light, as the ordinary public with which they had to deal were normally used to viewing everything under white light.

When dealing with stage lighting, he said, besides the question of the colour or hue, etc., of the light, there was the question of light intensity. Where varnished or sprayed lamps were used in white enamel troughs—i.e. open type equipment—the intensity from a given current consumption was very poor.

There was little doubt that one of the reasons why, generally speaking, coloured light was not employed very often on the theatre stage was that, until recently, the lighting equipment had been so crude and inefficient that coloured light had been useless for stage illumination and useless to provide colour tones other than red, poor mauves and poor blues (and sometimes amber). Producers had, therefore, become accustomed to the use of white light only, or coloured light provided by perches (i.e. arcs in the stage wings) or spot-lights.

Among those present were the following :

Messrs. Paul Phipps, B.A., F.R.I.B.A.; Kenneth Wray; John Bennett, City Architect, Exeter; P. J. Thomas; Stewart Kaye, A.R.I.B.A., F.S.A.; J. W. Weddell; A. J. Hislop; A. G. Henderson, A.R.I.B.A.; J. Gomersall; J. A. Chisholm Taylor, A.R.I.B.A.; J. E. Taylor, L.R.I.B.A.; T. W. Birkett; T. C. Howitt, A.R.I.B.A.; N. A. Whitham; J. Sydney Athron; W. G. Fryer; C. Sunderland, A.R.I.B.A.; J. Burton; Bertram Butler, A.R.I.B.A., A.M.T.P.I.; C. Slater, L.R.I.B.A.; Hurley Robinson, F.R.I.B.A.; A. F. Hendy; E. J. Davidson; A. Eaton; and Frederick Chatterton, F.R.I.B.A.

TRADE NOTE

A notable event in the history of Messrs. Archibald D. Dawnay and Sons, Ltd., the well-known constructional engineers, took place on Saturday, September 27, when a luncheon was given to Mr. Ernest A. Willson, the chairman and managing director, in honour of his having been associated with the firm continuously for fifty years. This took place at the Grosvenor Hotel, Victoria, when nearly fifty representatives of the directorate, staff and workmen met to celebrate the occasion. After a very enjoyable luncheon, Mr. H. Thorne, a director, on behalf of his colleagues and the employees of the company, presented to Mr. Willson a gold cigar box, together with a book containing the signatures of every member of the firm. In so doing, he mentioned that Mr. Willson joined the late Sir Archibald D. Dawnay on September 5, 1880. There were then only four members, while at the present time there are nearly 1,000 people engaged, with five large works at Battersea, Welwyn Garden City, Cardiff, Swansea and Norwich. Mr. Willson, who received a great ovation, in acknowledging the gift, briefly reviewed the history of the firm from the time he joined it until the present, and said how greatly he appreciated the thoughtfulness and regard which prompted the gift. Messrs. Dawnays have executed some of the most important steelwork contracts carried out in this country, recently that of the Masonic Peace Memorial in Great Queen Street, W.C.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents, and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated, readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATION

26974. Gass, J. E. Securing brickwork, etc., walls of steel-framed buildings. September 9.

SPECIFICATION PUBLISHED

314354. Naamlooze Vennootschap De Nieuwe Isoleer Maatschappij De Nim. Plates, slabs, tiles and the like for building and sound or heat insulating purposes.

Dinner to Dr. Sabine

Among those present at the dinner to Dr. Sabine, reported on page 512 of this issue, were the following :

Sir A. Brumwell Thomas, F.R.I.B.A.; Hope Bagenal, F.R.I.B.A.; Laurence M. Gotch, F.R.I.B.A.; J. Murray Easton, F.R.I.B.A.; Paul Phipps, F.R.I.B.A.; Guy Church, F.R.I.B.A.; A. Smithers, F.R.I.B.A.; C. Nicholas, F.R.I.B.A.; H. Rogers Houchin, F.R.I.B.A.; S. Tatchell, F.R.I.B.A.; E. Maufe, M.A., F.R.I.B.A.; J. Emberton, A.R.I.B.A.; E. Bird, A.R.I.B.A.; F. Cox, L.R.I.B.A.; E. A. Stone, F.S.I.; P. Rogers Cooke; T. A. Scott; H. M. Wood; E. Schaufelberg; A. C. Jamieson Green; Dr. O. Faber, O.B.E., M.I.C.E.; Dr. G. W. C. Kaye (National Physical Laboratory); R. W. Barnett (Industrial Research Board); A. M. Hallawell (Gramophone Co. Laboratory); Col. M. G. Bland, O.B.E.; F. Chatterton, F.R.I.B.A. (Editor *Specification*); Maurice Webb, F.R.I.B.A.; H. Austen Hall, F.R.I.B.A.; H. Lidbetter, F.R.I.B.A.; G. Drysdale, F.R.I.B.A.; T. P. Bennett, F.R.I.B.A.; W. E. Vernon Crompton, F.R.I.B.A.; J. R. Leathart, F.R.I.B.A.; J. E. Dixon-Spain, F.R.I.B.A.; H. P. G. Maule, F.R.I.B.A.; F. J. Wills, F.R.I.B.A.; T. R. Somerford, A.R.I.B.A.; F. R. Jelley, A.R.I.B.A.; H. A. Dawson, A.R.I.B.A.; Douglas Wood, O.B.E., F.R.I.B.A., F.S.I.; T. S. Tait; A. F. B. Anderson, S.A.D.G.; T. S. Darbyshire; S. B. Pritlove; Christopher Green, M.A.; Dr. G. A. Sutherland, M.A.; A. G. Ramsey (H.M. Office of Works); Dr. A. H. Davis (National Physical Laboratory); F. Ingham (B.B.C. Research Station); A. G. West (Gramophone Co. Laboratory); G. F. Dutton (Gramophone Co. Laboratory); Capt. A. F. Hancock; and Harold Tomlinson.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

The BARKING U.D.C. has decided to obtain tenders for the erection of an infectious diseases hospital.

Mr. F. W. Albon is to erect three shops, flats and garages in Longbridge Road, BARKING.

The BARKING Education Committee is to erect, by direct labour, two temporary schools on the Becontree estate.

Messrs. Intrade, Ltd., are to erect a celluloid store in Highbridge Road, BARKING.

The BARKING U.D.C. has passed plans for the layout of 2,197 houses on the Becontree estate, for the L.C.C.

Messrs. Montague Burton are to erect premises in East Street and Broadway Corner, BARKING.

The BERMONDSEY B.C. proposes to proceed with schemes for the reconstruction of three areas of land in Rotherhithe Street, Vaughan Street and Gilhams Court.

The BERMONDSEY B.C. is to erect cottages and flats at the Grange and in Bermondsey Street, by direct labour, at a cost of £24,300.

Terms have been arranged between the Grand Union Canal Co., the Ministry of Transport, and the St. Pancras B.C. for the reconstruction of Albert Road canal bridge, CAMDEN TOWN. The scheme is estimated to cost £12,000.

Messrs. F. T. Wooding and Son are to erect houses in Holmside Road, Thurleigh Avenue, and Nightingale Lane, CLAPHAM.

Messrs. T. P. Bennett and Sons, architects, have prepared plans for the development of the Cedars estate, EAST SHEEN.

Plans have been passed by the L.C.C. for the reconstruction of EUSTON SQUARE railway station.

The FULHAM B.C. has adopted a revised scheme for town hall extensions, and recommends the appointment of Mr. Walter Cave to carry out the designs.

The Walham Green Laundries, Ltd., are to erect premises on a site at the corner of Fulham Road and Garden Row, FULHAM.

The FULHAM B.C. is to commence the development of the Swan Brewery housing scheme.

The GREENWICH Hippodrome is to be reconstructed into a cinema, from plans prepared by Mr. George Coles.

Mr. G. G. Wimbourne is to erect lock-up shops and garages at the rear of 85 Dalston Lane, HACKNEY.

The HACKNEY B.C. has decided to proceed, by private Bill, to secure powers to acquire land for the extension of the town hall.

Messrs. Hobden and Porri, architects, have prepared plans for the erection of premises on the site of 124–6 Shacklewell Lane, HACKNEY.

The PADDINGTON B.C. is considering a scheme for the erection of a public hall in Porchester Street, at a cost of £40,000.

The POPLAR B.C. is to erect twenty-six flats on a site near Violet Road, Bromley, at a cost of £15,800.

The POPLAR B.C. is to erect twelve flats in Smeed Road, at a cost of £7,500.

The POPLAR B.C. is to obtain a site in the St. Michael's district for the provision of washhouses.

The ST. PANCRAS B.C. has under consideration a scheme for the construction of an open-air swimming-bath at Primrose Hill.

The ST. PANCRAS B.C. is being urged to provide further library facilities within the borough.

The L.C.C. is to provide additional elementary school accommodation for about 720 children at Mount Pleasant Lane, and for about 440 children at STAMFORD HILL.

The STOKE NEWINGTON B.C. proposes to proceed with the erection of municipal offices on the Glebe Place site, at a cost of £77,500, from plans prepared by Messrs. Hobden and Porri.

The L.C.C. Education Committee is to erect a school for 460 pupils in Tench Street, WAPPING.

The WIMBLEDON Corporation Health Committee has appointed a sub-committee to consider the question of obtaining a site for the erection of suitable accommodation for persons suffering from tuberculosis.

EASTERN COUNTIES

The HERNE BAY U.D.C. is seeking sanction for a loan of £20,000 for the erection of municipal offices and fire station.

The LOWESTOFT Corporation has approved plans, prepared by the borough surveyor, for the erection of 108 houses on the Kirkley Run housing estate, at an estimated cost of £39,960.

The SOUTHEND Corporation is considering a scheme for the extension of the Esplanade and the construction of a harbour, medicated baths and sports centre.

SOUTHERN COUNTIES

The BOURNEMOUTH Corporation has obtained sanction for a loan of £25,600 for the purchase of Hengistbury Head for pleasure grounds.

The BOURNEMOUTH Corporation Fire Brigade Committee is purchasing land at the rear of Birklands, Christchurch Road, required for an extension of the Central Fire Station.

At a meeting of the BOURNEMOUTH Corporation Housing Committee, the question of erecting Council houses by direct labour was referred to the borough engineer, who was asked to submit a report on the matter for the consideration of the Committee.

The BRIGHTON Education Committee has obtained land at Whitehawk Valley, for the erection of an elementary school.

The St. Mark's church authorities have obtained a site on the Whitehawk Valley estate, BRIGHTON, for the erection of a church hall.

The BRIGHTON Corporation has passed a revised layout plan for the erection of 197 houses on the Whitehawk Valley estate.

The BRIGHTON Corporation has approved plans, submitted by the Very Rev. Mgr. G. Wallis, for additions to St. Mary Magdalen's schools, Upper North Street.

Kemp Town Brewery, Ltd., are to build additions to the Clyde Arms, Bristol Gardens, BRIGHTON.

Alterations and additions are to be carried out at 59 London Road, BRIGHTON, for the Brighton and Preston Constitutional Club, Ltd.

Messrs. Braybons, Ltd., are to erect eleven houses on the west side of Stanmer Villas, BRIGHTON.

The SOUTHAMPTON Corporation is to erect 240 houses on the Bassett Green estate.

MIDLAND COUNTIES

Messrs. E. H. C. Inskip and Son are to erect new buildings in London Road, BEDFORD.

Messrs. T. R. Meakin and Son have prepared plans for the erection of premises for George Wilson Gasmeters, Ltd., in Foleshill Road, COVENTRY.

Messrs. Wignall and Ainsworthy have prepared plans for the erection of fifteen shops and a large café on the Salters Hall site, DROITWICH.

Mr. L. L. Jones is to erect houses in Hadfield Road, GLOSSOP.

The STOKE-ON-TRENT Corporation has passed plans and sections for the layout of land off Chatterley Street, Burslem, for the Chatterley-Whitfield Collieries, Ltd.

The STOKE-ON-TRENT Corporation has obtained sanction to borrow £51,034, for the provision of a new nurses' home at the London Road institution.

Mr. Watts, architect, is to lay out the Meir residential estate, STOKE-ON-TRENT.

Mr. Madew, architect, is developing the Harpfield Farm Estate, STOKE-ON-TRENT.

NORTHERN COUNTIES

Messrs. Francis Jones and R. A. Dalrymple have prepared plans for the District Bank, Ltd., for the erection of premises in Fountain Street and Spring Gardens, MANCHESTER.

Mr. H. Jewels is to erect sixteen houses in Lonks Road, TYNEMOUTH.

The TYNEMOUTH Education Committee is obtaining a site at Percy Main for the erection of a senior school.

SCOTLAND

The ABERDEEN Corporation has under consideration a housing programme for the erection of 2,500 houses during the next three years.

The GLASGOW Education Committee is to provide additional school accommodation in the neighbourhood of Lorne Street.

The GLASGOW Corporation is acquiring a site in Barrhead Road, for the erection of an infectious diseases hospital.

The GLASGOW Education Committee is to erect an elementary school in Smithycroft Road, Riddrie, and temporary school buildings in Knowes Avenue.

The GLASGOW Corporation is to extend the outfall sewer from Corkerhill Station to Barrhead Road, at a cost of £123,000; construct a branch sewer at Cardonald Place Road, at a cost of £42,000; and construct sewers at Crookston, at a cost of £12,000.

Mr. J. Miller is to erect motor showrooms and thirty-six houses in Craigleigh Hill, EDINBURGH.

The GLASGOW Education Committee has approved sketch plans for new schools at King's Park (Croftfoot) and St. Agnes's School annexe.

The following figures show the progress that has been made in State-aided housing schemes in SCOTLAND to August 30, 1930: 1919 Act, by local authorities, 25,129; 1919 Act, by public utility societies, 421: private subsidy schemes, 1919 Additional Powers Act, 2,324; slum clearance schemes, 11,920; under construction, 2,395; 1923 Act, by local authorities, 4,033: 1923 Act, by private enterprise, 18,432; under construction, 1,247: 1923 Act, by public utility societies, 80; 1924 Act, by local authorities, 45,345; under construction, 5,874: 1924 Act, by private enterprise, 2,205; under construction, 779: 1924 Act, by public utility societies, 127; under construction, 16; demonstration houses, 17; steel houses erected on behalf of Government by Scottish National Housing Company, 2,552; total completed, 112,585; total under construction, 10,311; total, 122,896.

WALES

The SWANSEA Corporation is to obtain expert advice regarding a proposal for the construction of an open-air swimming bath on the foreshore.

The committee of the Beechwood Club is to extend their premises in The Grove, Uplands, SWANSEA.

The SWANSEA Education Committee has forwarded plans of extensions to be carried out at Glanmor secondary school to the Board of Education for approval.

The managers of the Sketty Church of England schools, SWANSEA, are to modernize the school premises.

The SWANSEA Corporation has arranged terms with the L.M.S. for the reconstruction and widening of the railway bridge in Llansamlett Road.

The SWANSEA Corporation has agreed to co-operate with the G.W.R. in a scheme for widening the Station Road bridge at Cockett.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_2	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	•1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_1	Atherstone	Mid. Counties	1 5½	1 1
B_1	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
',	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	•1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	•1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	•1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	•1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	•1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	•1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	•1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_2	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Welling-borough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

• In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* NAVVY, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.

Clinker, breeze, etc., prices according to locality.			
Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1*s.* 9*d. each and credited when returned at* 1*s.* 6*d.*

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* BRICKLAYER, 1*s.* 8½*d. per hour;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. 6 *in., per ft.*	0	1	3
DO. 9 *in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. 6 *in., per yd.*	0	8	0

Portland cement and sand, see "Excavator" above.

Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½
STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0	4	3
DO. 6 in., per ft.	0	5	0
DO. 9 in., per ft.	0	7	9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
White facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. 9 *in., per roll*	0	4	9
DO. 14 *in., per roll*	0	7	6
DO. 18 *in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1*s.* 8½*d. per hour;* DO. *fixer,* 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0

Usual trade extras for large blocks.

York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube	£0	2	2

DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour;* TILER, 1*s.* 8½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies					£14	0	0	
Countess					23	0	0	
Duchess					32	10	0	
Old Delabole	*Med. Grey*				*Med. Green*			
24 in. × 12 in.	£42	11	3		£45	1	0	
20 in. × 10 in.	31	4	3		33	0	6	
16 in. × 10 in.	20	18	0		22	4	9	
14 in. × 8 in.	12	1	0		12	16	3	
Green Randoms, per ton					8	3	9	
Grey-green do., per ton					7	3	9	
Green peggies, 12 in. to 8 in. long, per ton					5	13	9	

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2

Cement and sand, see "Excavator," etc., above.

Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey			Med. Green		
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour;* JOINER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6

PITCH PINE, add 33½ per cent.

FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1⅛ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1⅛ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ⅔ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅔ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ⅔ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ⅜ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *⅜ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. from 3d. to	0	0	6
Plaster-board, per yd. sup. from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ⅜ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES

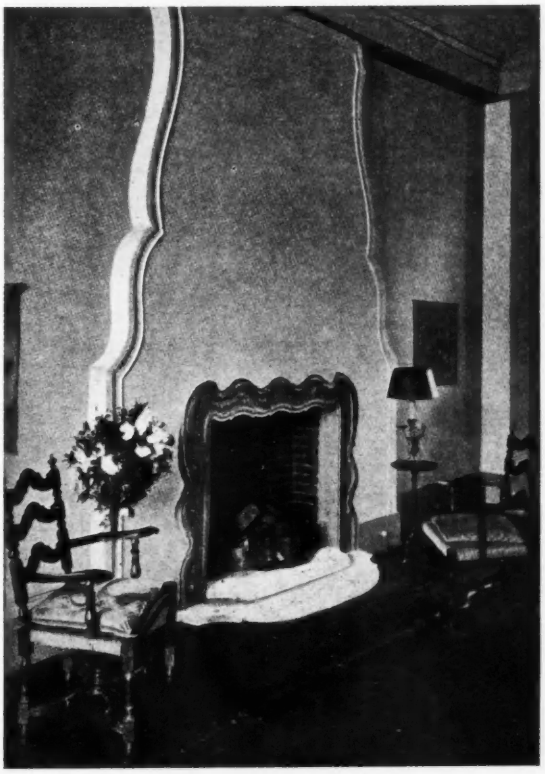
FIREPLACE; AND SCREEN:

37 HAMILTON TERRACE BY G. G. WORNUM

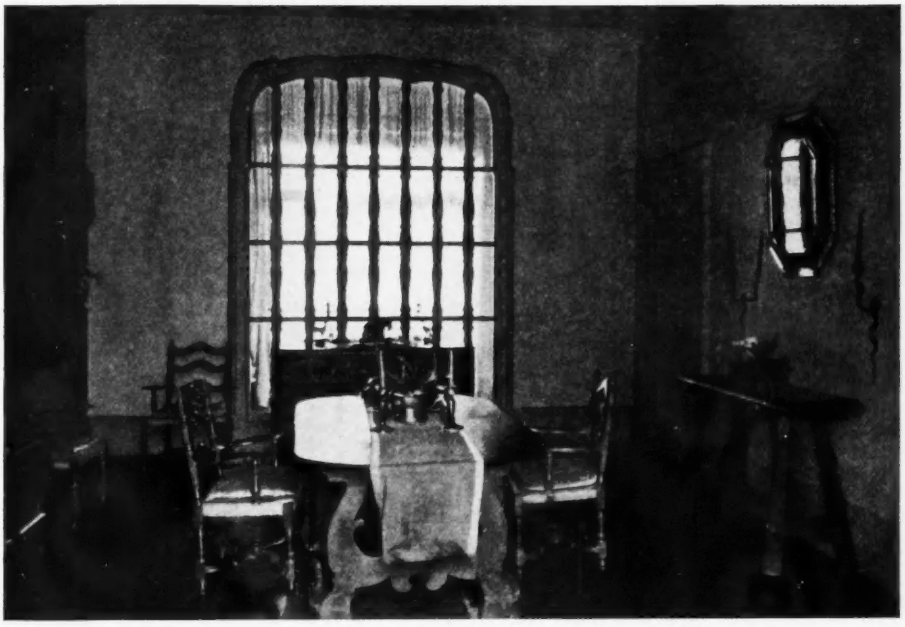
WHEN Mr. Wornum took No. 37 Hamilton Terrace, N.W., for his own occupation, he carried out a considerable amount of work, primarily of a decorative nature, to bring the inside at least of the house more into line with his own feelings.

It will be seen on reference to the drawing overleaf, which shows some of this work in the dining-room and the drawing-room, that the design generally is of a highly interesting character. Particularly noteworthy are the drawing-room fireplace and the heads of the cupboards flanking it, and also the balusters (a large scale detail of part of one of which is given on the drawing) which fill the screen in the dining-room.

The photographs reproduced on this page show some variations from the working drawings in minor details, and, of course, they fail to show the colour schemes upon which much of the effect depends.



The Drawing-room Fireplace.

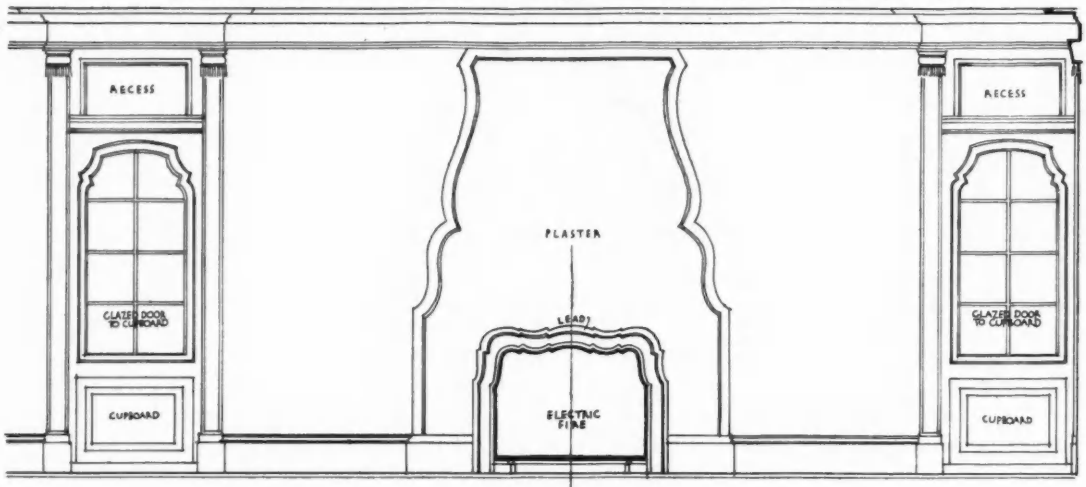


The Screen in the Dining-room.

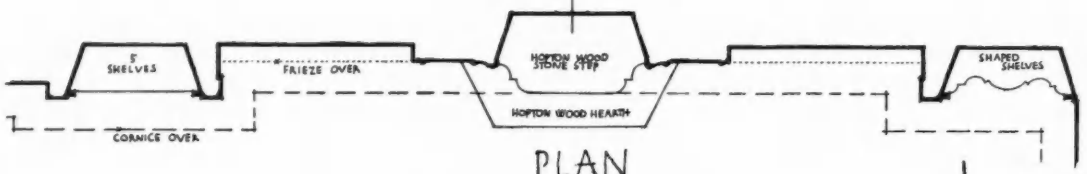
The drawing may be read with architects' ordinary scales (¼ inch; and 6 inches = 1 foot).

37 HAMILTON TERRACE · ST JOHNS WOOD N·W·8.

DETAILS · ¼-INCH SCALE & HALF FULL SIZE

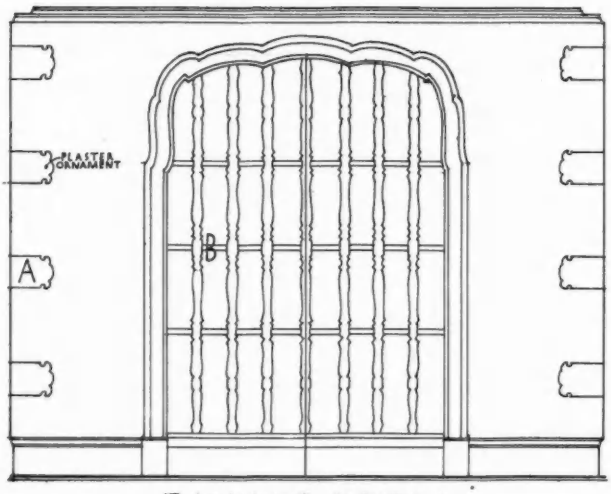


ELEVATION

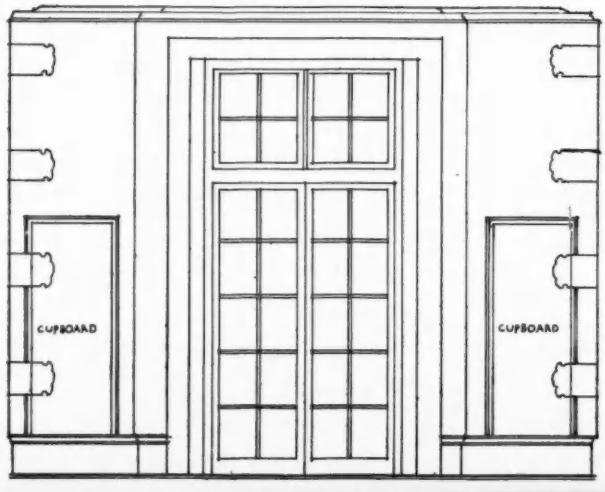


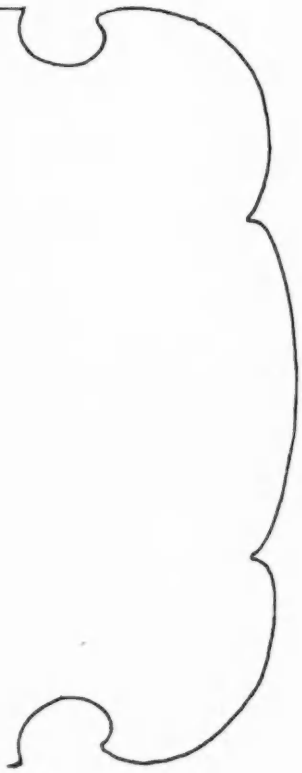
PLAN

DRAWING ROOM

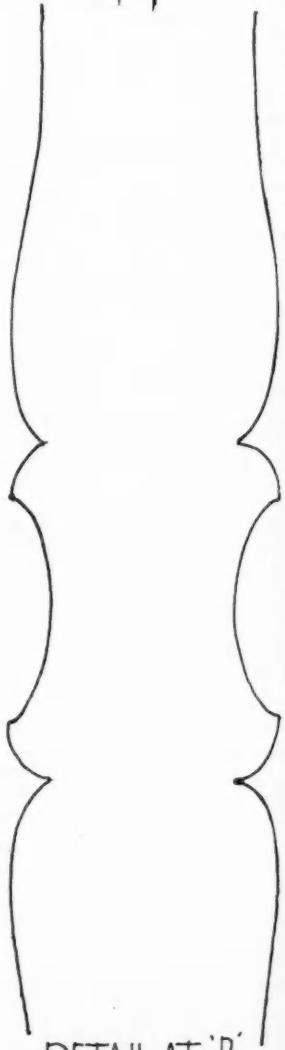


DINING ROOM





DETAIL AT 'A'
HALF FULL SIZE



DETAIL AT 'B'
HALF FULL SIZE

G. GREY WORNUM
ARCHITECT
E.P. 20



WEDNESDAY, OCTOBER 8, 1930

FEES—FIXED AND SLIDING

Tell me, what shall thy wages be?

—GENESIS XXIX. 15.

THE special committee appointed by the R.I.B.A. to consider the revision of the Scale of Professional Charges has done its work, and for the past fortnight Members have had an opportunity of studying its proposals. The committee has been active since April, 1927, and during its three-and-a-half years of work a good many criticisms have been expressed and much discussion entered into. The result of all this deliberation is down at last in cold print, and on October 20 the Council will formally approve the draft which will thus become a standard document of the Institute.

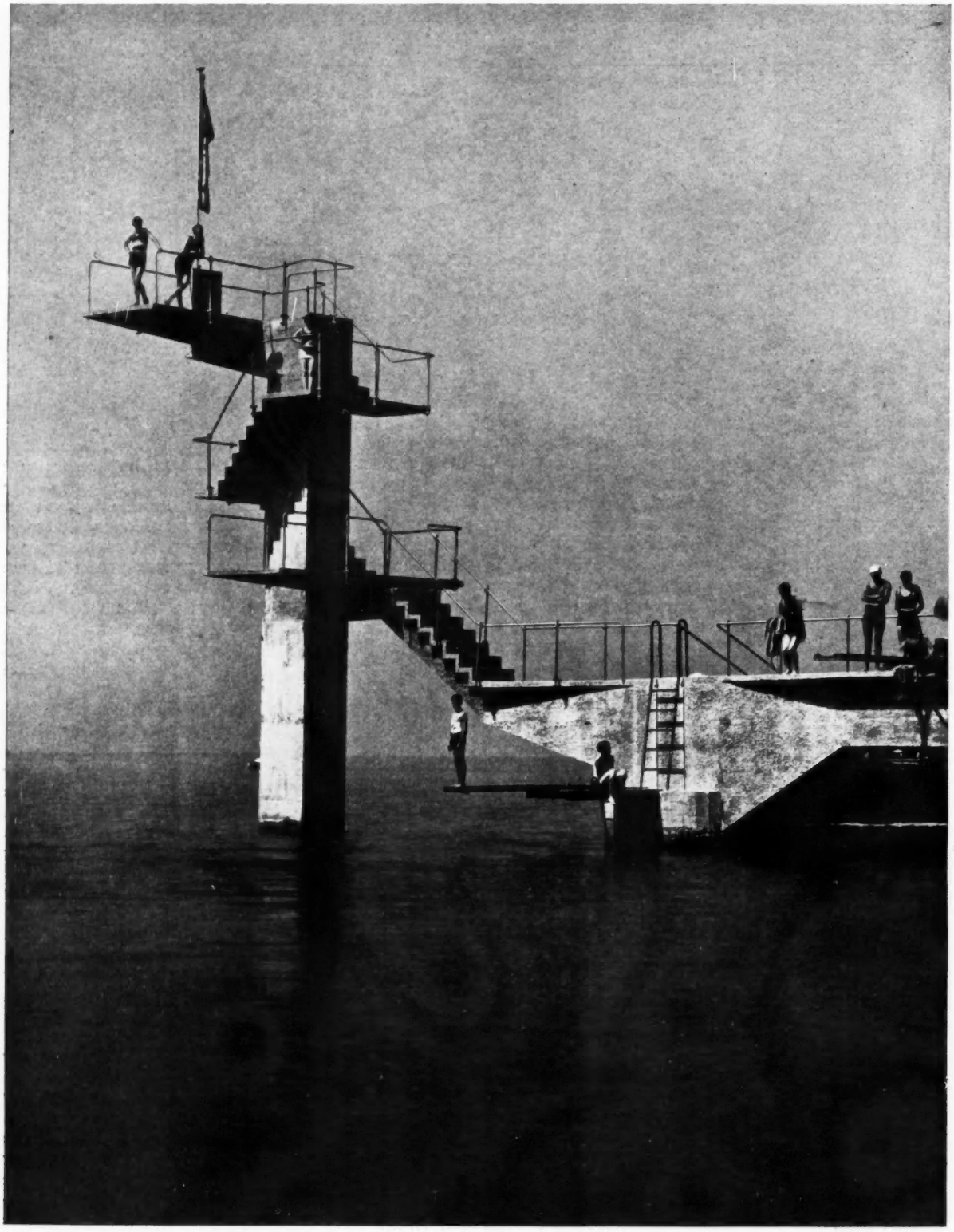
The most revolutionary thing about this draft is Clause *a* (iv) of Section 2, legalizing a reduction of the architect's fees in respect of work for which a consultant is employed. The reduction is not a very large one, being a matter of only 2 per cent. on the cost of the work. But a question of principle is involved which has long been the subject of acrimonious dispute. There are architects within the R.I.B.A. who hold that an architect should no more be asked to contribute to the fees payable to a consultant than to pay the cost of shop drawings prepared by a sub-contractor. There are others who agree with those public bodies who have decreed that the architect should bear the whole cost where a consultant is employed. The new draft clause will be regarded as a compromise, and we have no doubt that—provided it has secured, or will secure, the approval of the Ministry of Health and other recalcitrant bodies—it will be accepted by the profession as a sound compromise and even an advantageous one.

Apart from this clause the draft has little to say that is new. It is admirably tidied up and is brought into line with current practice on several points where hitherto this practice had been at variance with the printed word. A case in point is the clause sanctioning a 5 per cent. rate for "extensive works of a simple character." This rate has been charged on a large number of jobs since the 6 per cent. ordinary rate was instituted in 1919. But there remains one little piece of tidying which for some reason or other—possibly because of its comparative smallness and insignificance—has been overlooked. We refer to Clause *a* (ii) of Section 2, describing the scales of fees for works costing £2,000 and under.

The defect in this particular scale is so glaring and its correction so very small a matter that we are sure it only needs to be pointed out to be removed at once by the Council. A glance at the table printed on page 538 will show how the present official scale works out. How many people have ever wanted to apply it to the letter? We do not know, and it may be true that, as we have heard, most architects ignore its refinements of gradation and are content to charge their clients a round 7, 8 or 9 per cent., which is held to be "near enough." But if a scale is laid down, it should be workable, and the present scale is not.

The difficulty arises from the fact that the initial scale of 10 per cent. relates to a job costing £100, and as this cost increases to £2,000 the scale of fees is reduced in arithmetical progression from 10 per cent. to 6 per cent., after which point it remains stationary. Now, if the scale of 10 per cent. had started from the point at which the cost of the job was zero, the matter would have been delightfully simple, as then for every addition of £100 to the cost of the job the scale of the fee would be reduced by $\frac{1}{20}$ of 4 per cent., that is to say, by 0·2 per cent. Thus, for a job costing £100, the scale of the fee would be 9·6 per cent.; for £200, 9·2 per cent., and so on. The scale of the fee for a £500 job would be exactly 9 per cent.; for £1,000 exactly 8 per cent., and for £1,500 exactly 7 per cent., with even gradations between, calculated in terms of single decimal points.

In the existing authorized scale, however, for each £100 addition to the cost of the job between £100 and £2,000, the scale of fees is reduced by $\frac{4}{19}$ per cent. This is not a very convenient fraction to work with, and if we reduce it to decimals the luckless architect and his client must throw up their hands in despair, for $\frac{1}{19}$ in decimals happens to be .052631578947368421O, the last eighteen figures recurring *ad infinitum*. In view of this fact, with all due humility, it is proposed that Clause *a* (ii) be amended, and, by the simple expedient of making the 4 per cent. difference in the scale of fees relate to a difference from zero to £2,000 in the cost of the job, introduce the sensible gradation of 0·2 per cent. for every additional £100. Our excellent official scale must be rid of this pointless complication.



A DIVING STAGE ON LAKE GENEVA [*By Otto Zollinger*

The diving pool at the new Vevey-Corseaux Plage, in Switzerland. The plage nestles at the end of a bay on the shores of Lake Geneva, and includes a club house, terrace and tea-room. It is built entirely in concrete.



The White Rabbit *The Walrus* *The Carpenter* *The White Queen* *The Red Queen*

"Alice in Wonderland" characters have been carved on the keystones at Orchard House, now nearing completion in Oxford Street, W. (Trehearne and Norman, Preston and Co., architects)

NEWS & TOPICS

BUILDING INDUSTRY COUNCIL'S REPORT

THE interim report of the Building Industry Council of Review, of which Lord Amulree, K.C., is president, and Sir J. Tudor Walters and Sir Banister Fletcher are vice-presidents, was published last Monday (October 6). Probably an agreed report, approved by all the varied interests concerned in the industry, would never have seen the light of day if it had not been for the efforts of four distinguished members of the R.I.B.A. The chairman of the Committee, which held twenty meetings, taking evidence from many representatives of building interests, is Mr. Alfred Bossom. He has been loyally supported by Mr. Sydney Tatchell, who was nominated by the R.I.B.A. to sit on the Committee; by Mr. Howard Robertson, and by Mr. Herbert Welch. Probably every word of the report, extracts from which are to appear elsewhere in this issue, will not be approved by every member of the architectural profession; but it says much for the judgment and the tact of Mr. Tatchell and his colleagues that so many points sure to find favour with architects are included, and have been approved by such men as Sir J. Walker Smith, Mr. George Burt and Alderman Coppock.

★

Difficult days now face the industry. If it is not to be sheltered, foreign competition, which is already felt in respect of certain building materials and even in architecture, will gravely affect its present prosperity. The report indicates, in terms which are obviously drafted discreetly so as not to give offence, certain main lines along which future progress may be made. Specially noteworthy is the recommendation of the Council that building schemes should be subject to consultative architectural review and advice.

★

It is suggested that much greater use could be made of the panels of consultative architects recently established in different parts of the country by the R.I.B.A. "The advantage to be derived from advice and help of this kind is specially commended to the consideration of individual builders in all the districts where panels have been formed." The report is only an interim document. It faces up to some difficulties; it temporarily ignores others. I hope, however, that the Council may continue its work, possibly under Government ægis, as is suggested in the final recommendation.

UNDER THE THAMES; OR OVER?

Contrary to popular opinion, which is apt, after months of waiting, to take a facetious view of new Charing Cross schemes, the L.C.C. Committee will examine a number of very interesting plans of a varied nature. Although the whole thing is as complicated as it is possible to be, there seem to be only two main divisions of expert opinion on the best way of salvation—either under the river or over. For if there are to be no more embankments on the south side, and the Southern Railway are fixed in their decision either to stay at Charing Cross or to go no farther away than the Lion Brewery site, what else can be done but bury the railway below ground or elevate the stations ?

★

I very much hope that we shall be allowed to examine the evidence brought before this committee, because the wide terms of reference and the open invitation to the public are bound to produce a mass of interesting matter, all with a bearing upon town planning, upon London, upon traffic, and upon the general tendency of all these things as they apply to London. The collected evidence, abridged as necessary, should make a valuable document.

TRAM *v.* BUS

I may be wrong, but I thought I heard some mention of trackless trolleys for London. If I am right, then there is nothing I can think of, short of the entire submergence below ground of the Southern Railway, that will more largely benefit the great area of London south of the Thames, and north of the central areas on the other bank.

★

London tramcars are comfortable to travel in. They are now quite up to date, well lit, and very swift in travel; while the newly designed trams that I have seen moving grandly along the Finchley Road are marvels of modernity. But all this allowed, trams are a nuisance and they are unæsthetic; both, curiously enough, for the same reason, namely, that they occupy the centre of the road.

★

In the end their danger to traffic was bound to kill them. But what a long time they have been a-dying ! Oxford and Cambridge, two towns that suffered grievously by their presence, got rid of them long years ago, and only those that are there to see the transformation can say how absolutely damaging to all sense of spaciousness and dignity these silly vehicles are. Even towns like Liverpool and Manchester, that keep fairly efficient services on the

roads, would be better served in every way by some form of bus. One can only hope that when the trams leave London they will herald the decease of all trams, everywhere.

THE CARE OF CHURCHES

The fourth report issued by the Council for the Care of Churches is a most interesting document, as much for the good sense which it brings to bear upon its subject as for the subject itself. Who will not agree with them in finding the multiplication of wall tablets a serious disfigurement? Yet who will not still further admire their catholic taste in finding so much good in the best of periods so generally disregarded as the Victorian; in not wishing to sweep away this thing and that at the dictates of fashion? Really the most remarkable point about the report is exactly this breadth of outlook which marks it as representative of the more enlightened spirit of this time. To feel that it is better to put in clear leaded glass so as to be able to see the green fields outside is a new conception of worship, for to eschew much bad decoration in favour of sunlight is to induce the condition of a return to better and more human decoration.

LANDSCAPE GARDENING WITHOUT ARCHITECTURE—?

Reading University has established a diploma course in landscape gardening. It is a three-year course and is intended to cover every necessary phase of the subject. Art, botany, book-keeping, physics, chemistry, surveying and levelling, horticulture and building construction are included in the curriculum, but I find no mention of architecture. Why, I cannot think, for architecture is the only possible approach to the subject unless the whole thing is to be a relic of Capability Brown and his school. Architecture alone deals with proportion, form and a real understanding of solids, and to imagine that architecture has to do only with formal gardening is to think superficially of each of them. I hope I am mistaken about the curriculum.

MODERN SIGHTSEEING

At the entrance to Stonehenge, which is now being looked after by the Office of Works, may be seen during the holiday months rows of motor coaches occupied by complacent people comfortably sitting in their seats and gazing at the greatest prehistoric relic in Great Britain. Very few trouble to get out of the coaches, and fewer still to pay the small fee demanded in order to enter into the sacred circle. The other day I listened to the driver of one of these coaches, whose exact words were: "That is Stonehenge on the left—no, I mean on the right. We shall stay ten minutes here before going on to see the Rufus Stone. You can get out if you like, but you can really see all you want from here, and will save 6d." Only one man raised himself from the seat in order to take a photograph of these stones through the window of the coach. What a difference from the impression made upon Pepys when he rode out to Stonehenge from Salisbury, and afterwards wrote in his *Diary*: "Find them as prodigious as any tales I ever heard of them, and worth going to see; God knows what their use was"! Dr. Johnson's comment, after going on the same day to Salisbury Cathedral and Stonehenge, was: "Two eminent monuments of art and rudeness, exhibiting the first essay and the last perfection in architecture."

CISSBURY DOWN TO BE RE-CONDITIONED

I referred recently to the disfigurement of Cissbury Down by estate developers. Let all rejoice, and evil-doers tremble, for Sir Lawrence Chubb has announced that the letters of chalk, each of them forty-five feet long, are to be removed by the action of the Scapa Society, public opinion and the County Council!

COLD COMFORT

Architecture is frozen music—"and sure leaves us cold," said the American.

ASTRAGAL

R.I.B.A. SCALE FEES: COMPARATIVE TABLES SHOWING EXISTING AND PROPOSED CHARGES

(See this week's leading article)

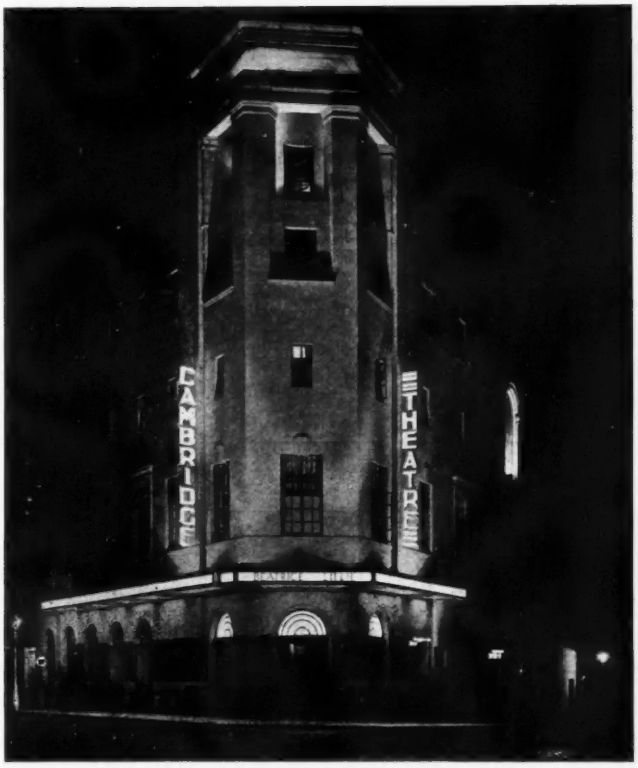
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CAMBRIDGE THEATRE

DESIGNED BY

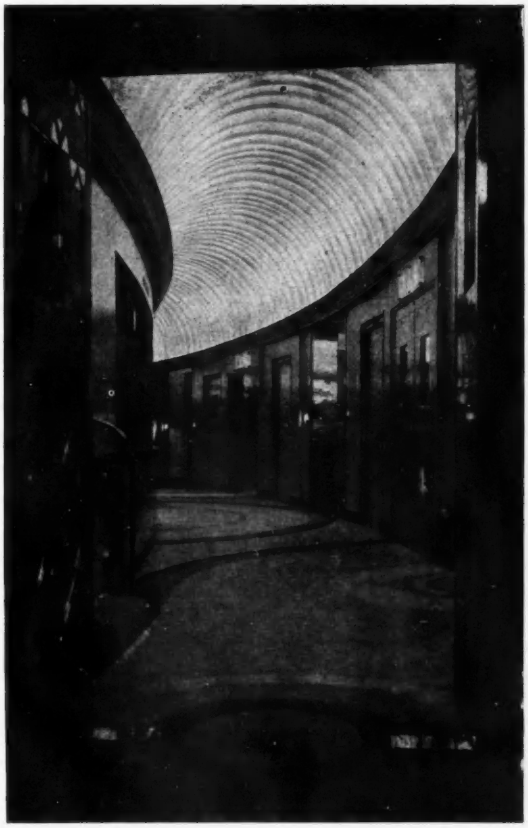
SEVEN DIALS

WIMPERIS, SIMPSON AND GUTHRIE

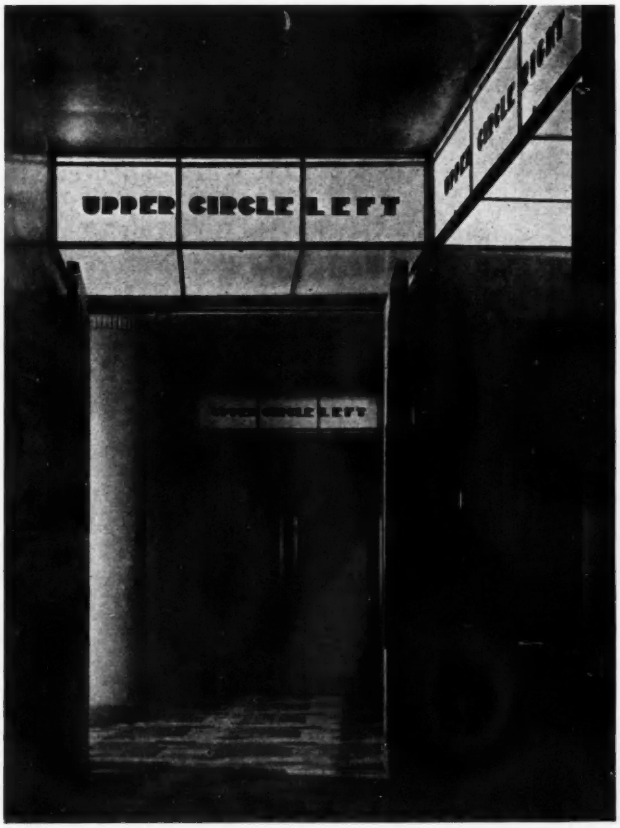


The Seven Dials frontage, as seen, floodlit with yellow light, by night. In contrast, the canopy above the corner entrance, the side signs and the tower are tinged with Cambridge blue. (A photographic study, taken by day, appeared as a frontispiece to the issue of THE ARCHITECTS' JOURNAL *for September 3 last.)*

SEVEN DIALS sounds an odd locality for a theatre. But so many new theatres are being commissioned and erected in London at the present time that it is obvious that fresh ground must be broken outside the traditional haunts of the stage. What, by the way, is to be the upshot of all this activity? Presumably the older and less convenient houses will, one by one, be pulled down. Into this particular neighbourhood a long stride was taken when the Dominion Theatre was built near the corner of Tottenham Court Road.



The stalls foyer has a ribbed ceiling, concave in section, and is equipped with concealed lighting.



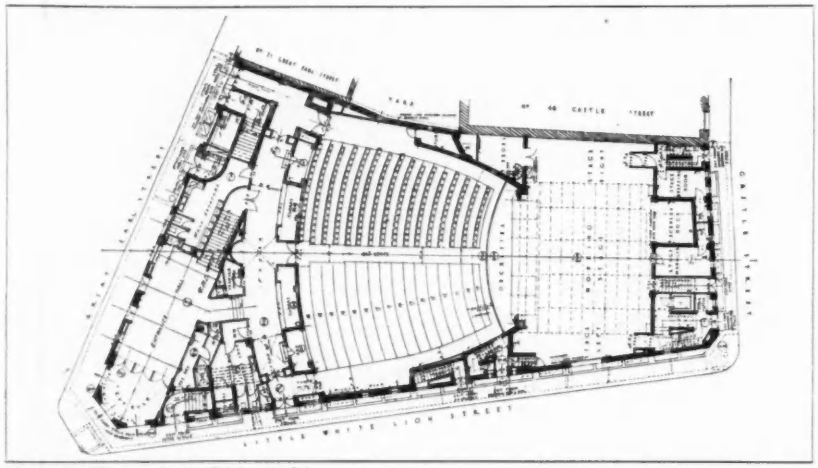
The upper circle approaches, looking through the foyer. Many doors have convex double finger-plates as seen on the right.



Looking down at the stage from the upper circle. The grille at the foot of the proscenium opening conceals the orchestra pit: it is of brass. The series of roof-ribs (see also the illustration on page 542) has concealed lighting.

And within the last week or two the Phœnix has been completed, also within a stone's throw of Seven Dials, and, consequently, of Cambridge Circus.

But the Cambridge is really nearer the old theatreland than either of these; it is, in fact, not so many yards from the Shaftesbury. The site is a corner one, actually facing "the Dials," and that it was of an awkward irregularity a glance at the plans will show. It may be said that its configuration left no option as to what direction the main axis of the house must take; but the problem of setting out the entrance cannot have been so easily solved.



Cambridge Theatre, Seven Dials, W.C.]

Plan of the orchestra stalls, which seat 440 persons. The manner in which much has been made of a site of unpromising irregularity is worth study: the axis of the entrance hall does not bisect the corner angle, but runs parallel with Great Earl Street.

The new building presents a symmetrical design when looking at the corner, yet the subsidiary axis of the entrance hall is actually parallel to one of the boundary walls, a fact of which, however, most visitors will remain quite unconscious. The exterior is faced mainly with stone, and the metal windows, the entrance canopy and the display signs are painted Cambridge blue, an appropriate and distinctive colour that is also made to tell when the façade is floodlit at night.

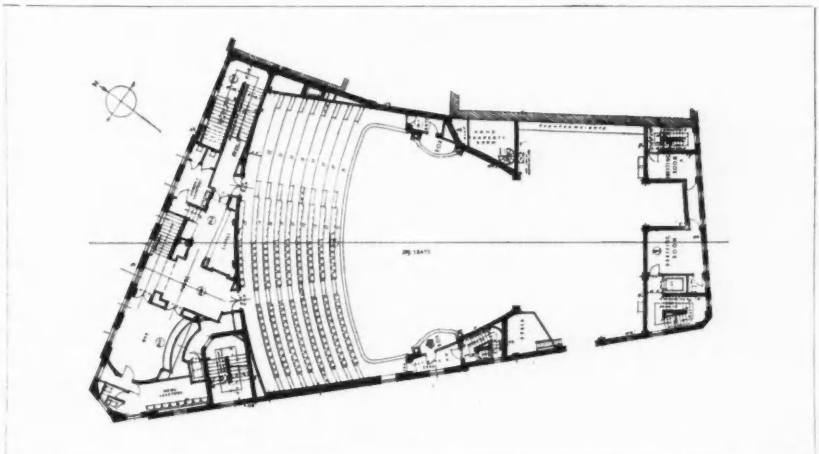
Within, the shape is unusual where theatres are concerned, especially as regards the roof, since both vertical and horizontal sections describe continuous elliptical curves. Across the ceiling a series of transverse ribs advance in increasing proximity one to another, up to the springing of the dress circle. Each contains concealed lighting playing upon the downward-dropping dome that would in any case lead the eye to the proscenium. The effect is intensified by the scheme of decoration, carried out in bands of lacquered metal-leaf, diagonally sloped and graduated



Looking across the dress circle, which is lit in a series of curves concentric with its main outline. The walls are covered with metal leaf, toned a deep gold-brown and lacquered. Tones of cinnamon and grey appear in the carpet.

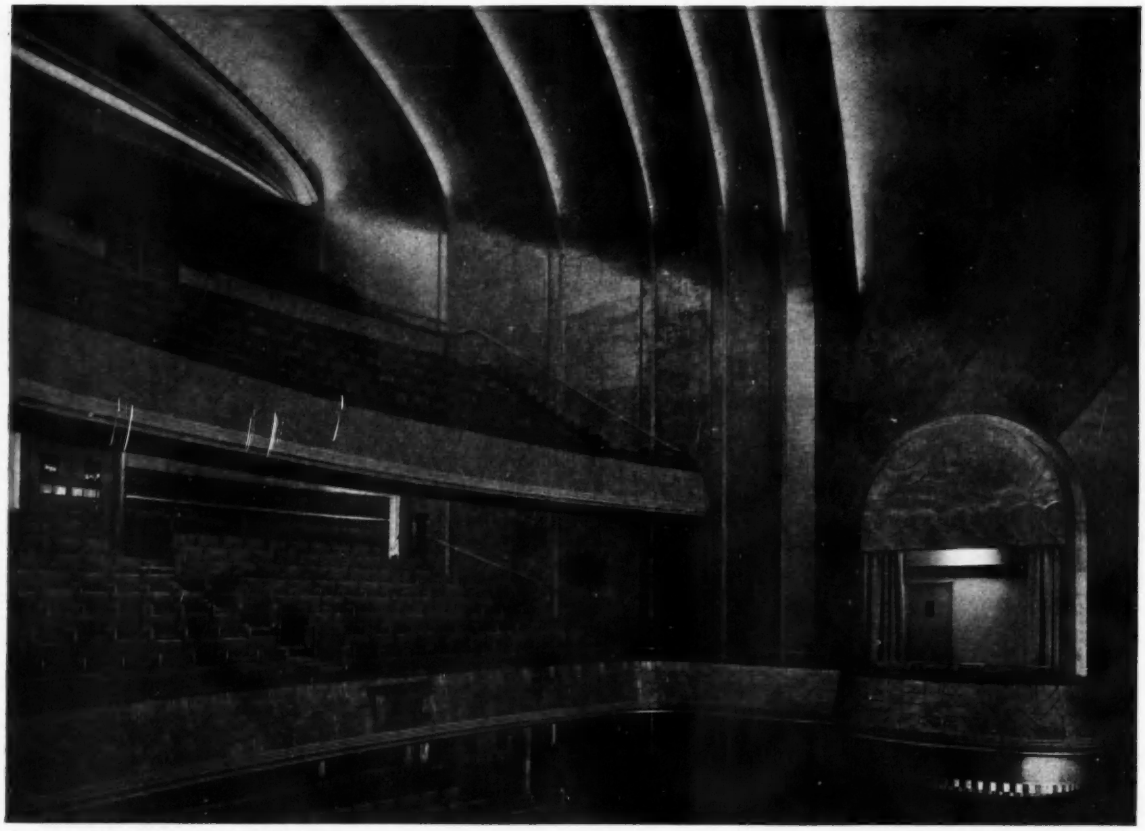
from deep gold-brown to pale honey-yellow. The effect is of a quiet but rich expectancy, well calculated to prepare for, but never to compete with, the show on the stage. The only excrescences are the two boxes, but even these give the impression of being lobes of the dress circle: each has a semicircular arched opening, the tympanum of which is filled in with an embossed design finished in matt silver. The auditorium is of moderate capacity, stalls, dress and upper circles affording spacious seats for something over a thousand persons.

In the foyers, bars and other rooms and corridors outside the playhouse proper, a rather freer use has been made of the glittering decorative adjuncts offered in such profusion by modern materials. Much of the door furniture, handrails, etc., as well as the bar-stools, tables and so forth, is chromium-plated. A distinctive type of finger-plate on the doors catches the eye. Whether in brass or in chromium, its twin convex outline looks highly effective against the dully-polished walnut that is extensively employed. The carpets and rubber flooring have been specially designed, the former, in the more important parts of the theatre, displaying a "C" cipher. The foyer behind the stalls is a curving corridor, with a ribbed, arched ceiling, indirectly lit, and has an alcove immediately facing the doors to the central aisle of the stalls. The lounge and bar for this part of the house are planned beneath the street-level entrance hall, and are approached by stairs. At dress-circle level, room has been found for a separate foyer and bar, opening one from the other. The decorations throughout the house are designed by Chermayeff.



[*By Wimperis, Simpson and Guthrie*

Plan of the dress circle, which accommodates about 300 seats. At this level two boxes break the regular curves of the house. That on the right of the auditorium is the Royal box, and opens to a small retiring room. Both boxes are approached from the circle.



Cambridge Theatre, Seven Dials, W.C.] [*By Wimperis, Simpson and Guthrie.*

A view of the dress and upper circles, from the Royal box. The bands of colour on the metal-leafed and lacquered main walls are graduated from deep gold-brown to light honey. The fascias of the circles are in embossed burnished metal; the tympanum of the box bears a decorative design in low relief, and has a dull silver finish.

BUNGALOPHOBIA

AN interesting discussion concerning bungalows has been taking place recently in the pages of *The Spectator*. Mr. Stanley Casson, in an article entitled "Bungalophobia," says that he cannot understand the prejudice against bungalows. In half the British Empire, he states, Englishmen live in bungalows, and yet the moment that an Englishman in England attempts to live in one he is assailed with vituperation. My own bungalow is, I may say, quite definitely a growth, but has nothing "bungaloid" about it at all. For the termination "—oid" means "resembling," or "with the appearance of," and my bungalow neither resembles a bungalow, nor has the appearance of a bungalow. It goes straight to the point and *is* a bungalow. It is almost entirely of wood; its foundations only are of stone. Its roof is of large flat red tiles and the walls of its rooms are lined with stuff like cardboard, which I optimistically believe to be asbestos. These sheets of cardboard are held in place by "slats" of wood, which were whacked in by nails. Two red brick chimneys protrude from the red roof and the rest of the building is painted dark green. It is extremely comfortable and warm in cold weather and extraordinarily cool in summer. It faces south-west on the north Cornish coast and has been standing for ten years without any single part of it either blowing away or falling down. Nor are there any draughts in the strongest gale, and the water does not come in.

Now what would Mr. Clough Williams-Ellis suggest to me and it? It has no trace whatever of the finer elements of modern architecture. It is built for being lived in and nothing else. I have softened down its asperities; its nasty wooden slats and asbestos have all been oil-painted in one colour, its fireplaces oil-painted to match, and the whole been simplified to a single unity of mural decoration. But Mr. Williams-Ellis would want it uprooted and in its place he would ask me to build a subtle creation in Bath stone or Stonesfield slate, for which an undoubtedly expensive architect would do me the plans. To which I can only reply that I am not prepared to pay more than the price of a moderately good car for any bungalow that he may design, and that the cost of the design must be included in the total of, say, £500 or £600. Instead of damning all bungalows and their owners for building "growths," let the architects come forward and give us the ideal bungalow at the ideal price. Today there are hundreds of poor people who yearn for a country home and are either driven into buying a bad bungalow or driven off buying any for fear of buying a "growth" and incurring the wrath of the highbrows. Fortunately, my bungalow with careful treatment looks simple and practical, and it has a lovely garden, no other bungalows anywhere near, and a trout stream at the foot of the sloping hillside on whose wooded steep it stands.

The architects and divines must stop

nagging and get to business. If they don't like my "growth" and others similar to it, they must design better and even cheaper ones. And, what is very important, they must design different types for different regions. Cornish bungalows will not do for the East Coast or for the Cotswolds. Even if they are made wholly of wood they can still assume types that suit regions.

Then, again, in the types of fireplace, steps and gates, the bungalow, without extra expense, can copy the type of its district. And it can use local stone. In the granite areas it can build its foundations of granite and so automatically achieve the local style. In slate areas it will use the thick slabs of slate from local quarries for steps, fireplaces and gardens, and so on. The scheme for "regional bungalows" in which local materials are drawn upon is not one which I have as yet seen popularized by the architects.

I am tired of all this abuse of bungalows. If the alternative is to live in a boarding-house among the palms and aspidistras in the summer, then I will build any kind of bungalow.

MR. WILLIAMS-ELLIS'S REPLY

Mr. Clough Williams-Ellis, replying a week later, says: May I suggest to Mr. Casson that he read what I have actually written in my book, *England and the Octopus*? the general drift of which was as follows:

That it is entirely right and desirable that people should seek to live in the country, and it is both selfish and cynical merely to laugh at the often pathetic attempts of bungalow dwellers to achieve an imagined rusticity, so often frustrated by their own tragic ignorance of country ways and traditions as well as by the cheating exploitation of their innocence by land and building speculators.

That there obviously is nothing inherently base in a one-storied building, as countless charming old cottages can testify—nothing shameful about a stairless house. It is only the debasing of our structural currency by the "Carriage - paid - to - any - station" bungalow hawkers that has given this type of dwelling a now deservedly bad name.

I want to preserve the country *for* the towns, not *from* them; I want it protected for one reason only, that we may have it for our refreshment and enjoyment.

It is not even the shoddy individual bungalows that I deplore so much as their unskilful and anti-social placing, too often selfishly and planlessly peppered about the landscape without regard for their background or for other people's views.

That is why I plead for a National Regional Planning Scheme, for some measure of effective Amenities Control, so that in our clumsy haste we do not utterly destroy the thing that we love, yet with such shortsighted greed and so little understanding.

Ideally, I held, that would generally mean the use of the traditional local materials, but where under modern conditions these proved too costly I laid it down that it was *colour* that really mattered (especially in the roof).

I agree with Mr. Casson that the British architectural profession as a whole has failed to give guidance where guidance was so obviously needed.

As to good standard designs for really cheap little houses and bungalows for varying needs and localities, such have been freely published but little used. It is a grim thought, but the general public at present actually prefers, so it would seem, the inconvenient, tawdry, gimcrack stuff that it mostly gets—which is, I admit, the fault of us architects and propagandists, who should have taught it better.

Some time ago, with a rather baseless optimism, I offered to revise the elevations of any wholesale bungalow manufacturers who cared to send me their catalogues—merely simplifying and integrating and modifying the proportions, without adding in any way to the cost.

Several responded rather perfunctorily, frankly telling me, however, that the design of their current products was dictated by the public taste, which they as tradesmen were bound to study, and that they feared that the straightforward simplicity that I advocated would not be considered "tasty" or "artistic" enough by their customers. So one has really got to go much farther back—to education.

By his own confession it is clear that Mr. Casson has only contrived to make his own "Reach-me-down" even tolerable by pretty drastic after-treatment, and I am darkly amused to note that he claims as one of its chief amenities the fact that there are "no other bungalows anywhere near"! One often reads much the same recommendation in estate agents' advertisements—"Unspoilt country—no bungalows near"—though it is very seldom true, which is one reason why so many of us are inclined to spend our holidays elsewhere than in England.

LETTER FROM MR. HARDING THOMPSON

Mr. W. Harding Thompson, in a letter to *The Spectator*, says: Mr. Stanley Casson's article probably expresses the opinion of many people who appreciate the joys of a summer bungalow by the seaside. It is interesting, therefore, to note that his sound views on the desirability of using local materials have not been put into practice in the case of the bungalow which he owns on the Cornish coast. This particular building, according to his description, is constructed of wood with a roof of "large red tiles." It is not clear whether these tiles are of clay or asbestos, but in either case the materials mentioned have been used in a region where some of the finest slate in the world is quarried, where stone and granite are plentiful, and where timber is scarce.

Few architects object to the bungalow type of dwelling provided it is well designed, but it lends itself more readily to a flimsy kind of construction, and hence is erected cheaply by the speculative builder, who easily finds a purchaser, and so is not concerned with the cost of upkeep. Experience of building with permanent materials proves that the two-story dwelling is rather more economical than the bungalow. Also every property owner knows that the cost of upkeep is an essential part of the economic factor in building, and it is futile to argue that initial cost is all that matters. It is unlikely, therefore, that the present enthusiasm for the cheap bungalow will stand the test of time.

From the æsthetic point of view the colour and material of the roof of a low building is a most conspicuous element in the design. Having recently made an exhaustive survey of the Cornish coast for the Council for the Preservation of Rural England, I am convinced that the major disfigurements of that beautiful region are due to buildings out of harmony with their surroundings and the Cornish tradition—irrespective of whether such buildings are of one or more stories. Bright red tiles (especially the pink asbestos variety) on the Cornish coast conflict with the admirable grey-green local slates that harmonize so well with the low colour tones of the western landscape.

If the bungalow is to become part of the English landscape, there is no reason why it should not be as seemly in appearance as the one-story cottages that have survived from previous centuries, and whether of temporary or permanent materials it will not offend the community if it retains its simplest form, stripped of all those meaningless "embellishments" frequently used by the speculative builder.

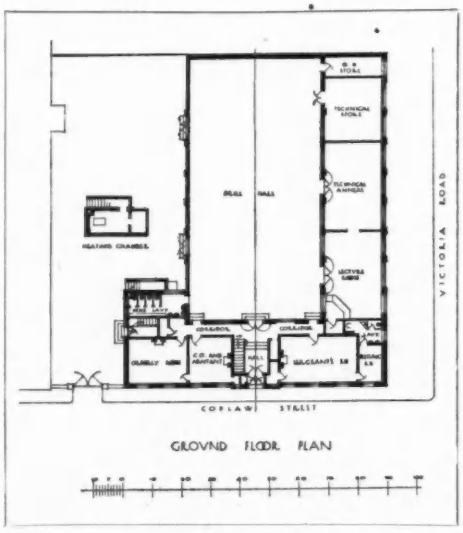
The grouping and siting of such buildings is, however, another matter which is bound up with town planning; this is just as important as the use of suitable materials; indeed, the lack of town planning foresight lies at the root of the recent public resentment against the so-called "Bungalophobia." One wonders whether Mr. Casson's summer retreat will retain his affections when a few hundred other people have built bungalows in close proximity to and in competition with his own!

AUXILIARY AIR FORCE HEADQUARTERS GLASGOW

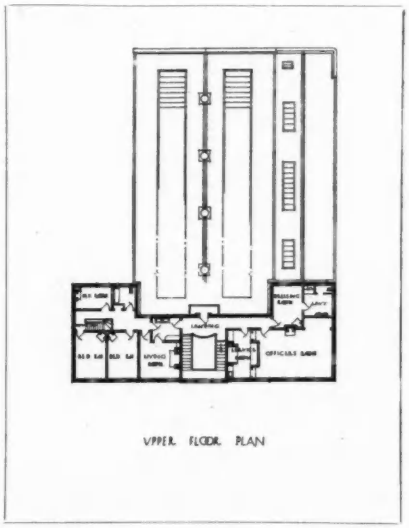
DESIGNED BY LAUNCELOT H. ROSS

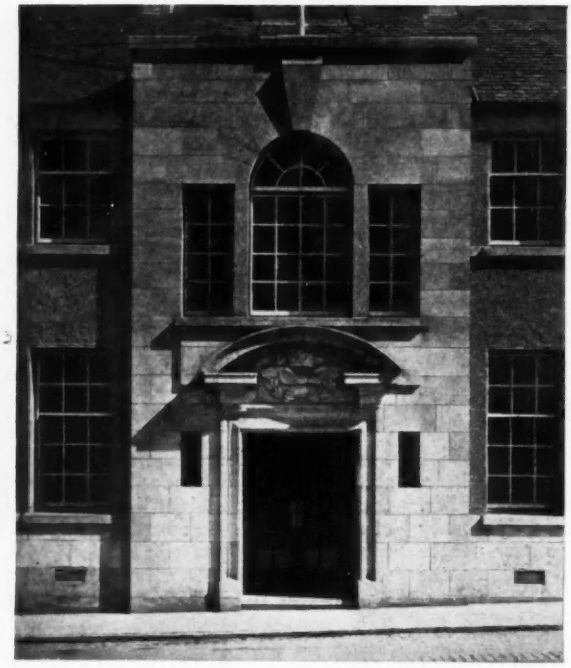


A view from the corner of Coplaw Street (left) and Victoria Road



The walls are of brick, roughcasted on the exterior in a light yellow colour and dashed with "Dorset Peas." The base of the building and the main entrance are of Auchenheath white stone, and the roof is covered with Ballahulish slates. In the instructional hall the walls are finished in red clay brick, pointed, and the floor is laid with pitch pine, edge grain. In the vestibule and corridors the floors are laid with red Ruabon quarries, and the walls are finished in tiles to a height of 4 feet 6 inches.





The main entrance in Coplaw Street.



Fireplace and alcove in the officers' mess.

LITERATURE

CONTINENTAL IRONWORK

THIS present book is the second volume of a revised edition of Mr. Starkie Gardner's great work, prepared by Mr. W. W. Watts, formerly Keeper of the Department of Metalwork of the Victoria and Albert Museum.

When Starkie Gardner wrote in 1896 he had not a great deal of information to go on, and his masterly exposition of his subject quickly became a standard work; nor can one say, glancing through the excellent bibliography of the present volume, that time has seen fit to eclipse his pre-eminence or dim the brightness of his vigorous prose.

No one who has sought to trace the rise and fall of ironworking through history can fail to notice how much more importantly it has ranked as an art in the periods when it was associated in equal measure with the purely utilitarian. Thus in the days when a sword was man's most cherished possession, the smith was all-powerful.

In Renaissance days the smith had lost his pre-eminence among craftsmen, and although the production of ironwork continued to be an index of national prosperity, the fire had largely departed from the craft and burned again under different circumstances, and at the command of men who were artists before they were craftsmen, and were never in the true sense members of a corporate and powerful guild of workers in iron.

At the present time ironwork, regarded as an art, is nearly extinct, for if one rules out the enormous production of copyistic rubbish and laborious worship of tradition, only too little remains to carry forward the story of genuine growth. There might be greater cause for regret if one omitted to remember the startling emergence of modern steelwork design from the crude forges of the preceding centuries. Count but the Forth Bridge and any great liner as a conscious work of art, and the story leaps forward to untold heights of powerful expression.

Yet we are in that peculiar quandary of being uncertain as to where our riches lie: distrustful alike of the modern machine and the clumsy hammer; nor knowing to which to give allegiance.

It is at such a time that one may best seek first causes in an attempt to define one's attitude to the job of expressing life in terms of what material comes easiest to hand and suits the civilization we live in; and here it is that Starkie Gardner, who was as aware as any today of the condition of change, may give us the key to the problem. He wrote of iron, but he wrote equally of the men who worked iron, and why and how they worked it. That is why his books are still so valuable, and why we should be grateful for a new edition to present his thoughts in a form more to our liking than the old production of 1896.

The present volume deals with Continental ironwork from mediæval days up to the Late Renaissance. A final volume will cover the same period for England alone.

E. M. F.

Ironwork. Part II.: Continental Ironwork of the Renaissance and Later Periods. By J. Starkie Gardner. Revised and enlarged by W. W. Watts, F.S.A., Victoria and Albert Museum. Price 3s. 6d. net.

MODERN ENGLISH FURNITURE

A SURVEY of modern furniture design as comprehensive as this of Mr. Rogers' is a work for which we should be grateful. During the last few years we have felt ourselves moving into a new current of mental activity unlike any we or our ancestors before us have experienced since Gothic architecture arose out of the remains of a vanished civilization.

Surrounded by the ordinary vulgarities of urban existence, one is apt at times to miss the point of the modern revolution. Here, among the pages of this book, one can see most clearly the marks of economic pressure, the emergence of new ideas and altogether new enthusiasms for materials; and, combined and inextricably mixed with these, a stubborn, native disregard of strange logics.

What strikes one is the marked difference between the native-born furniture and the imported modernist. The one is country furniture; the other



From Modern English Furniture.] [*By John C. Rogers.*

For the small suburban or country house. Solid oak furniture of simple design to suit the slender purse. Designed by Philip Tilden and Ambrose Heal.

C

town furniture; as though English architecture were of the country house and cottage, in contrast to the eloquently urban work of foreign or Continentally-inspired designers.

This is indeed true when, after the war, we took up the story of furniture design we thought in terms of cottages and country houses. Our best designers were men who, like Ambrose Heal, directed a return towards straightforward and simple design in unvarnished oak, based upon an early tradition that had been eclipsed by the eighteenth century. Their work was sane and healthy, and we are deeply in their debt, for they have brought us a long way on the road towards an absolute interpretation of our age in terms of furniture design. The revolution is to be read in terms of plywood, laminated wood, new metals, and from these a new orientation of the real springs of design that arise always from a feeling for material. *Solids have been replaced by surfaces.* That is the kernel of modern design, and the new zest for surfaces of fine plywood built into sombre shapes that offer the cleanest expanse of surface has transformed and re-made even the furniture that clings with set purpose to whatever of the English tradition it may still rightfully inherit.

All this you may read as you turn the enthralling pages of this book. On the one hand, the luxurious suavity of Chermayeff; on the other, the gentle simplicity of John Stark and Gordon Russell; with the polite compromises of Messrs. Symonds and Lutyens taking the middle road.

It is impossible even to attempt to do justice to the wealth of material gathered within this survey. The point one would make in recommending the book is that it is comprehensive and shows *all* the currents of present-day design, so that it is not only a guide to architects and the like, but "a permanent and authoritative record of contemporary achievement." F.

Modern English Furniture. By John C. Rogers, A.R.I.B.A. London: Country Life, Ltd. Price 21s.



Dressing-room with range of fitments, providing hanging and drawer space, with shaving table and toilet basin.

[*From* Modern English Furniture.]

BUILDING INDUSTRY COUNCIL'S REPORT

THE following are the principal recommendations of the Building Industry Council of Review, whose report was issued on October 6:

That the appropriate organizations in the industry should continue and strengthen the action already taken to secure the extensive revision of building legislation and regulations necessary to make possible the fullest development and progress of the industry. This should include the standardization of regulations—covering both technical matters and administration—as far as possible over the whole country.

That the Time and Progress Schedule system of construction should be extended on a standardized basis as widely as possible throughout the country.

That efforts should be made to impress building owners with the importance of settling all essential details before building work commences, as the indispensable condition of operating the time schedule system and securing its economies.

That the general contractor should be specifically and entirely responsible for the supervision and progress of the whole of the construction work, including that of specialist and other sub-contractors, who should be made parties to the schedule, with provision for the usual penalties for non-observance of the terms.

That the collaboration of the architect, engineer and the quantity surveyor at the earliest possible stage in any proposed building work should be encouraged.

That tenders for specialist work should be based, wherever possible, upon quantities to be incorporated in the bill of quantities.

That, wherever practicable, competitive tenders should be obtained for specialist work. (Accepted with a reservation by Sir J. Walker Smith and Mr. Arthur G. Cross.)

That the educational authorities concerned with the training of students for the building industry should consider the possibility of making arrangements to facilitate the interchange of students for varying periods and giving instruction in all the latest approved methods.

That public bodies, and builders in all districts where panels of consultative architects have been established by the R.I.B.A. should consider the advantage of the advice and help to be derived from this source.

That a comprehensive effort should be made throughout the industry and associated trades to achieve by co-operative action all the economies obtainable from standardization and simplification.

That a permanent Central Council should be set up, to be composed of representatives of all branches of the industry and associated trades, and that a fully representative conference of the various organizations concerned should be convened for the joint discussion of this proposal without delay.

[Astragal contributes observations on this report.—ED. A.J.]



ENGLISH PRECEDENT No. 136

THE JUDGE'S LODGING, ST. GILES, OXFORD

Like many buildings in Oxford, the Judge's Lodging, No. 16 St. Giles, is somewhat spoiled by the leprous flaking of the stone. The entrance, however, with its iron gates, its piers surmounted by stone urns, is simple and dignified. The door has lost its hood, but there is a fine hood over the garden entrance.

It is seldom that such houses are dated, but here the year 1702 is conveniently recorded on the leads, together with the names of the builder, Thomas Rowney, and that of his wife, Elizabeth.

LETTERS FROM READERS

Official Architecture

SIR,—Mr. Leathart has read the report of my opening speech in the debate on Official Architecture at Olympia without comprehending that I was discussing architecture and not architects; and that, somewhat reluctantly, I cited as far as possible comparable examples. It is therefore not surprising that, though an architect, he does not appreciate that a cathedral and a railway terminus are architecturally not comparable, and that consequently an invitation to compare the one with the other is merely a perhaps unconscious insult to the intelligence of an architect.

I have often pondered upon the phenomenon to which he refers, and have arrived at the considered conclusion that the answer to his question is twofold, i.e. that some "fashionable outside practitioners" must be unscrupulous poachers upon the preserves of their fellow-architects; and that the commercial and banking houses concerned most probably humour this poaching proclivity for reasons of diplomatic business policy.

This procedure, however, does not always tend to the enhancement of the architectural amenities of our cities as exemplified in at least one banking house, the elevations of which, judging from results, might with advantage have been entrusted to its able initial architect.

If commercial and banking houses do not realize it, every architect ought to know that plan, section and elevation are inseparable elements in the geometrical expression of an architectural conception; so the "fashionable outside practitioner," who butts in to design the elevations, is veritably an "outsider" and an affront to the art he professes to serve, whether his incentive be an elongated, and so distorted, opinion of his own ability or importance or the equally objectionable sordid greed of gain.

The attitude of private practitioners to each other and to their official contemporaries is "passing strange" and affords food for thought, but it does not tend to elevate the reputation of the profession in the eyes of kindred professions or of the public, as demonstrated by the deliberate omission of the architectural profession from the preliminary deliberations concerning great public improvements such as the Charing Cross Bridge scheme.

A little introspection might be salutary to some of our "fashionable private practitioners."

Mr. Leathart wrote before hearing all the evidence, so I would commend to his consideration your report of my closing remarks in your issue of October 1; and, as the inadvertent omission from the report of the second line of my final quotation from Kipling's L'envoi from "The Seven Seas" deprives the quotation of its essence, may I again quote it. Whatever view we may take of each other, in the long run :

> Only the Master shall praise us, and only the Master shall blame;
> And no one shall work for money, and no one shall work for fame,
> But each for the joy of the working, and each, in his separate star,
> Shall draw the Thing as he sees It for the God of Things as They Are !

R. WYNN OWEN

SIR,—My attention has been called to the debate held at Olympia on "Official Architecture." Now this solemn and dignified pother about the art of architecture being best served by one set of architects or the other is entirely beside the point.

It is a fact that the service of an architect is a commodity, and, as such, is one to be purchased in the cheapest market. Let us forget the fallacy that a business concern employing a staff of architects is doing so solely to advance the interests of architecture. Nothing of the kind; it is getting the design and supervision of its building schemes in the most economical manner possible—as indeed, it should.

When for £100,000 worth of building annually a business organization has to pay £6,000 in fees to an outside architect, it is bad business not to employ a staff architect at, say, £500 a year with a couple of £3 a week juniors.

As for Mr. Leathart's question at the end of his letter, that an outside practitioner is occasionally called in to design the elevations to an important building, I can satisfy his simple bewilderment. Where a building requires "titivating" up a trifle with columns and what not, the company's own architect, being hired in the cheapest market, is not considered quite up to the extra requirements of same. But there is still a substantial saving made on the debit side of the balance sheet to justify this extravagance of the employment of what Mr. Leathart terms the "fashionable architect."

"BUSINESS MAN"

SIR,—The correspondence on official architecture in the JOURNAL appears to have produced few champions of the officials themselves. Some of the statements are getting a shade reckless in consequence.

What are the facts ? Official architecture grows rapidly, therefore it is either saving my money (as a ratepayer), or our local authorities and private corporations are all fools. I believe the first case to be true.

Mr. Gotch wants it both ways : every competent assistant cannot practice himself, as strings to pull and/or private means are essential. Therefore, this man practises as near as he may in the office of a public authority.

Mr. Gotch also believes that officials do not enjoy the criticism expected by a private architect. I invite his attention to every or any local paper in the kingdom. No criticism forsooth ! Mr. Lanchester discloses another nigger in the pile, in saying that "the private architect can vary the type of assistance he might require to meet the needs of the moment." Very true : he can—and does. But assistants, competent or not, do not relish being "varied to meet the needs, etc." i.e. being discharged at short notice and irregularly engaged.

There are as competent men employed officially as elsewhere, large numbers being qualified and examined members of the Institute. These men are the subject of a silly attack on alleged socialism by good old private enterprise, under the very feeble guise of a yearning for "pure art and higher things." Summed up, official architecture gives its employees a chance, often otherwise beyond them, of attempting real architecture, of feeding themselves and their dependants regularly, and of rendering good service to the State. I am not an official myself.

A. JOHN PRICE

The Calton Site Buildings

SIR,—The Sheffield writer quoted on page 524 of your issue of October 1 is surely somewhat premature when he asks : "We wonder what special fee, or whether any special fee, is being paid by the Government to those officials in the Office of Works who made the plans"; referring to the Calton Site buildings.

When it is realized that schemes for this site have occupied the attention of the Office of Works for about seventeen years, a more useful question to ask would be : What has it cost the ratepayers to prepare the various schemes?

It was stated at one of the Edinburgh Town Council meetings that the city architect would advise the council about any necessary alterations for the so-called third scheme, at present in the hands of the Fine Art Commission.

It is surely unusual to talk about special fees for a job that, so far, has been bungled.

The first consideration in designing a building is generally understood to be : Is the site large enough to meet the

requirements, if the nature of the site is such that particular attention must be paid to questions of amenity.

This consideration has either been overlooked or ignored by the Office of Works, and it is hoped that the Fine Art Commission will stand fast on this most essential point in dealing with the third design. Edinburgh has a real tradition in town planning, and if the Office of Works are unable to handle this problem, it should be taken out of their hands without further loss of time and money.

In private practice one loses a job if he cannot handle it; but, in this case, it seems that the designers not only lose nothing of their income, but are indeed in danger of getting a bonus for mishandling the work.

WILLIAM DAVIDSON

Polytechnics and Exhibitions

SIR,—The letter signed " Polygnotus " which appeared in the last issue of the JOURNAL is misleading and untrue. There may be, and indeed are, some polytechnics professing to teach architecture, which are giving their students incomplete training and therefore adding to the inefficient members of the profession.

As I was head of the Northern Polytechnic School of Architecture, I am able to speak with personal knowledge of this particular school. The policy has always been to discourage entry into the profession of all except students who have unmistakable capability, and large numbers of boys were refused admission to the Architectural School each year.

The course of training in the school was, I submit, as complete as that of any architectural school in the country, and the greatest proof of this is shown by my experience in practice, where, broadly speaking, the most industrious and capable assistants I have had passed through the Northern Polytechnic School.

The Northern Polytechnic has one great advantage over many of the University Schools and the Architectural Association; and that is, that the whole of the students are forced to take their profession extremely seriously, as failure to succeed leaves them devoid of any means of earning their living. This atmosphere of work is of the greatest possible benefit to all concerned, and I have found that it is more universal in the Polytechnic School than in schools where the average student has never known real economic pressure.

" Polygnotus " would be entirely wrong in describing the Northern Polytechnic student as half-educated. The evening as well as the day school provides a complete system of education, and the greatest possible pressure is put on every student who enters to undertake to complete the course, and students who require odd subjects are invariably refused admission unless they can show complete efficiency in the remaining portions of their programme.

To suggest that students who might have been suitable craftsmen are induced to enter the profession of architecture is entirely misleading, and must have been made without the slightest knowledge of the extremely careful personal selection which is exercised by the head of a department such as that of the school referred to. It is ridiculous to suggest the elimination of expenditure on polytechnic education, as it is the only means of supplying real training to many of the youths who are permitted to drift into the profession by practising architects who welcome cheap labour, while these assistants are young, and give them practically no training or provision for earning a substantial salary when they are older.

I would urge " Polygnotus " to write to me personally and obtain some first-hand information of the organization of an architectural school in a polytechnic before he writes further letters to the Press.

T. P. BENNETT

Removal of Litter

SIR,—With reference to Astragal's amusing note on the change of public taste from the burning of witches to the burning of litter (September 3 issue), I think the only way we are going to stop the British public, whether motor or other picnicker, is to follow the words of the litter chanty (to the tune of " What shall we do with the drunken sailor ? ") :

What shall we do with the thoughtless tripper ?
What shall we do with the thoughtless tripper ?
What shall we do with the thoughtless tripper ?
Early in the morning.
Keep on keeping on until he's tidy, etc.

The little local experience in Bradgate Park, Leicester, has proved that putting a small litter box, where the unpleasant rubbish does not offend one because it is hidden, has led to quite a decrease in litter at Bank Holiday times. I do not think the open wire basket (which is more often than not too small) is a solution, as one instinctively avoids its unpleasant look when it contains litter.

Regarding motor cars stopping at the entrance to villages and depositing their litter, I think Astragal expects a little too much of human nature.

The secondary schools might do a bit more to help, as they train the motoring classes.

The New Forest litter raid seemed to me an excellent form of publicity.

HARRY PEACH
(HON. SECRETARY, C.P.R.E.)

Settling-Up Honeywood : xx

FAT IN THE FIRE

BY KARSHISH
(H. B. CRESWELL)

The owner, Sir Leslie Brash, and his family, are tormented with poisonous fumes from the heating furnace, which escape into the hollow space of outside walls and manifest themselves in remote parts of the house ; but neither the architect, Spinlove, nor the builder, Grigblay, has yet been able to determine what, or where, the defect is. Brash has also been baulked of satisfaction for defective painting, by the bankruptcy of the manufacturing suppliers of the paint, and is much upset at a project to develop the land adjoining his property in a layout of " Dainty Houselets." He has also just received particulars of his architect's charges.

MISS PHYLLIS BRASH TO SPINLOVE

Dear Jazz, 20/10/26.

Well really, thingys are getting a bit *too* rather, don't you think? Why not jump up and do something ! Poor Dad exploded when he got your letter the morning he went away, and knocked over his coffee. You should not do that. What did you say to upset him so? He told me the smells were fumes from the heating furnace; and since he went it has been like living in a refuse destructor here, and I had to tell the servants to let the fire out or I should not have been able to keep any of them in the house. Mum is pining in exile, and I dare not go to her for fear of finding the house empty when I got back; Dad is thoroughly displeased with you, and I do not know what he will think if he comes back and still finds nothing done. It is just as if you did not give a blow. You really ought to get a move on.

PUD.

As there is no reply to this letter in the file, we must suppose that Spinlove answered it privately. In point of fact the delay is due rather to circumstances than to any neglect on his part.

SPINLOVE TO GRIGBLAY

Dear Sir, 21/10/26.

I write to confirm telephone message asking that you will now at the first opportunity go to Honeywood with the plans, as you proposed, and find out where this defect in the

furnace flue is. Something really must be done without delay, as the inconvenience is increasing and great dissatisfaction is expressed.

Will you telephone which day Mr. Grigblay will go; and also let me know result of the investigation by wire or telephone ?

Yours faithfully,

Spinlove seems to be at last spurred to action.

SPINLOVE TO BLOGGS (TELEGRAM)

21/10/26.

Reply paid. Can you say where defect furnace flue likely to be—Spinlove.

SPINLOVE TO BLOGGS

Dear Mr. Bloggs, 21/10/26.

I wired to you today and enclose confirmation. I have seen your report on the run of the furnace flue, but what is wanted is information of the cause of the escape of fumes into the hollow wall, and of the position of the defect. Can you recall any circumstances which will throw light on the subject ?

Yours truly,

It is irregular for an architect to write personally to any servant of a builder, but as Grigblay failed to tap the appropriate vat of Bloggs's garnered memories, Spinlove, in his ambition to "get a move on," is impelled to make the attempt.

BLOGGS TO SPINLOVE (TELEGRAM)

21/10/26.

Sir try Williams sweep Thadford may likely know—Fred.

If Spinlove had no other feeling than surprise on reading that last word I do not envy him. Bloggs shows a humbleness of nature that is almost affecting. He is known to everyone about buildings as "Fred," he regards himself merely as "Fred," and he here shrinks from the assertiveness of using his patronymic.

GRIGBLAY TO SPINLOVE

Dear Sir, 21/10/26.

Mr. Grigblay will arrange to go to Honeywood Friday. Please note that delay is no fault of ours as Mr. Grigblay proposed to go over last week, but we had message from you we were to wait your further instructions.

We should like to explain that Messrs. Glauber and Walsh's letter to you of October 18th was under a misapprehension.

Yours faithfully,

Glauber and Walsh no doubt wrote to Grigblay reporting Spinlove's refusal to issue the certificate, and asking further instructions.

The following letter has been written under the conditions of extreme torment imposed by the absorbent back of an old blue print—embossed by the hobnails of someone who once stood on it—and a pen of unimaginable antecedents. Bloggs has evidently made haste to reply by return.

BLOGGS TO SPINLOVE

Sir, 22/10/26.

Now I come to think there wehre a lanky chap Williams by name come hanging about to get the job to sweep the chimblys, I sent off but two or three days after there he was come back and says her Lady ship add give him the order, well I give you the order not to touch no flews I says but I'll give you a nice esay job I says and that thire is the quick job of clearing off from wehre you have no call to be I says and wehre your not wanted I says. He sauce me and says I dursent let him has the half could never be rodded, but I dident think no more till one Tuesday dinner after the day the riging come and took the gate post, and there was the little hand cart he had standing—What's this here I ask some of them—Oh thats the chap too sweep the flwes they says and theire I found him right up the furnice acause she told him to, and grined dirty at me acause he could not pass is rods with a grate big coreing iron he had haeving and pokeing and never thinking thire wehre a soot door. It made me fare mad with half a bussel of parge and mortar he had raked down and I prety near had to frog marsh him before he would take himself off. Well thire it was been and done and had to be left you cant get inside a flwe to parge but never thouhgt no harm would come.

Yours respectfully,

"The Honeywood File" recounts how, during Brash's absence on holiday, Lady Brash became the dupe of a touting chimney-sweep ; and it now appears that the defect which has been the cause of her continued complaints, and the source of so much trouble to so many persons and for so long a time, is due to no remissness on the part of either architect or builder or of anyone else, but to the lady herself, who ignored the assurances of Spinlove and allowed the vigilance of Bloggs to be eluded. It is only fair, however, to regard the catastrophe as the lady's misfortune rather than her fault.

SPINLOVE TO WILLIAMS, CHIMNEY SWEEP, THADFORD

Dear Sir, 23/10/26.

I understand you were employed by Lady Brash to sweep chimneys at the new house at Honeywood and were stopped after you had begun on the furnace flue, and that you found an obstruction you could not clear.

I should be glad if you could tell me where the obstruction was.

Yours faithfully,

No purpose is served by Spinlove asking this question, for now it is known that the defect is probably due to violent attempts to clear the flue of an imagined obstruction, the damage is to be looked for at the place where a set-off, or bend in the flue, prevented the rods from passing. This place will probably be well above the soot door spoken of—the purpose of the door being to give access when bends in a flue prevent its being wholly swept from the fireplace opening.

SPINLOVE TO GRIGBLAY

Dear Sir, 23/10/26.

I enclose copy of letter received from Bloggs, contents of which I communicated by telephone today.

I have written to the chimney-sweep, but perhaps Mr. Grigblay will be able to get in touch with him before going to Honeywood tomorrow.

Yours faithfully,

"MR. WILLIAMS, PRACTICAL CHIMNEY-SWEEP (CHIMNEYS SWEPT)" TO SPINLOVE

Sir, 25/10/26.

Replying *re* your favour, we operated on Her Ladyship's furnace as per instructions. On endeavouring to pass 18 in. brush, obstruction was encountered after six canes. Following our usual practice with refractories, we then made attempt with No. 1 iron, but received instructions to desist from contractor's representative before desired results obtained.

Said flue belongs class 1 unsweepables, in our opinion, being carried over too sharp at six-and-a-quarter canes.

Yours respectfully,

Mr. Williams (Chimneys Swept).

GRIGBLAY TO SPINLOVE

Dear Sir, 25/10/26.

We beg to report we had furnace flue opened up yesterday and found defect due to damage by sweep employed by Sir Leslie Brash. We have left the flue opened up for your inspection and instructions.

Yours faithfully,

SPINLOVE TO GRIGBLAY

Dear Sirs, 26/10/26.

Please make all necessary repairs to flue at once, so that heating furnace may be brought into use. To be charged *extra.*

Yours faithfully,

GRIGBLAY TO SPINLOVE

Dear Sir, 27/10/26.

We must decline to restore damage to flue until we have received your acceptance on behalf of Sir Leslie Brash that we are in no way responsible for same.

Yours faithfully,

This sort of thing is the natural consequence of bringing solicitors upon the scenes : without good faith and mutual confidence in a common purpose it would scarcely be possible ever to get any building contract carried out at all. Brash, by his conduct of the Riddoppo dispute, has made it no less than necessary for Grigblay to protect himself as he does.

GRIGBLAY TO SPINLOVE (AUTOGRAPH)

Sir, 27/10/26.

I saw your letter at office today, and you will have received my reply, but I will just take leave to send you private word and ask you to have a look at that flue, for where shall I be if I build up and all evidence destroyed and only my word that the damage is no business of mine but the work of the sweep acting on your client's orders? It would be a good thing if the old gentleman had a look too, for he has been over ready to lay trouble, that is nobody's fault but his own, to other people's doors, and seeing is believing, and believing may save a few solicitors' letters of which there have been more than enough wasted already. Sir Leslie is expected back in a few days, they tell me, so no harm to wait a bit.

From what Bloggs wrote you, I broke into the flue from the scullery about five feet up in the corner, and there it was plain enough, the handy work of Mr. Williams—as he calls himself—who carefully raked away about two feet of the new parging, clawed the mortar out of the joints and punched a bit of a closer, that happened to come nice and handy, clean through into the hollow wall so as to leave a proper hole you can put your hand through comfortably without rubbing any skin off your knuckles. I never saw the like of it in all my experience: he would have ended by raking the house down if Bloggs had not stopped him. It is lucky it is an easy matter to put right, though it will mean a bit of pulling down before we can get at the job.

You will pardon me writing, but thought you ought to know how things are.

Yours faithfully,

Although a building owner has no right to expect, as some do, that an architect shall give up the better part of a day to viewing one or two insignificant defects in a completed house, it is clearly Spinlove's duty, under the special circumstances, to inspect this flue, so that he may satisfy himself that the damage is as Grigblay reports and, if it is, that there has been no contributory negligence in the building of the flue. Grigblay's reference to a "closer"—which is a small piece of brick built in for the purpose of overtaking the break of the joints and making the end brick of the course finish to a fair face—indicates that the bricklayers may have been at fault; for a closer would scarcely be rightly used in the position indicated. The defect may be the occasion, as Grigblay foresees, of adding fuel to Brash's grievances; and it is incumbent on Spinlove thoroughly to master the facts so that his apportionment of responsibility may be authoritative. Strictly speaking, he had no business to decide that the sweep was to blame—as he did when he authorized the repairs as an extra—without first satisfying himself of the fact by an inspection of the work. It would serve no purpose for Brash to view the damage, for he could not use his eyes unless someone were at hand to direct him in the evidence of them, and it is only Spinlove who could give him that direction.

BRASH TO SPINLOVE

Dear Mr. Spinlove, 2/11/26.

Your communication of the 14th reached me on the day of my departure, and I now, on my return, sit down to indite my reply in the hope that you are by this time so far relieved from the pressure of your extreme preoccupation with various other interests as not to be entirely prevented from perusing it with the attention which, as your employer, I apprehend I am entitled to expect.

My unavoidably protracted delay in replying will, I conceive, be no disadvantage to the matter I have to expound, as the extreme *insouciance* of your last communication—if I may diverge into a foreign tongue to express my sense of the inappropriateness of the epistolatory style you think fit to adopt—might have precipitated a more forcible rejoinder.

The explanations I must request you to furnish, as I have already intimated, anent your attitude to the Riddoppo dispute, and anent your approval of extortionate "profits" and "fees" added in the builder's Statement of Account, and anent also your own astonishing claim for fees—I desire to postpone to the occasion of a personal interview to be conveniently arranged at Mr. Russ's office. I now address myself to you exclusively on the subject of the noxious emanations which have continuously tormented us ever since we first took up residence at Honeywood Grange. After ten months of elusive evasion and dilatory procrastination you now inform me the house has been so built that coke fumes from the heating furnace are dispersed to all parts of it, and that we are being slowly poisoned; and you intimate with a bland assurance which—you must permit me to remark—causes me most amazed astonishment, that the whole matter is now satisfactorily disposed of *because* Mr. Grigblay has signified his willingness to carry out the necessary preventative measures "*without charge.*" You must permit me to asseverate that I cannot subscribe to any such fantastically preposterous view of the matter. As a consequence of Grigblay's contemptibly shoddy building and—you must allow me to point out—the negligent supervision of my architect, and his dilatory indifference to the appalling discomfort attendant on the disgusting effluviums of which we are the victims, Lady Brash has suffered in health, the domestic staff has been on the verge of revolt, and I have been involved in heavy disbursements on account of fees incurred by the necessity of recourse to the advice of medical practitioners and to the employment of sanitary consultants.

During these months you have had numerous intimations of the repulsive odoriferous conditions, and have repeatedly reiterated assurances that no unsavoury emanations could possibly eventuate in so carefully built a house as Honeywood, and have excused yourself from the trouble of ascertaining the cause of complaint by sending Grigblay to persuade us nothing was wrong, so that he might save himself the trouble of having to put anything right. Our complaints have been met by nothing but evasive procrastinations; and when, eventually, on my urgent insistence, you condescended to investigate and were compelled to admit the presence of olfactory effluviums, what did you do? You did nothing! After weeks of delay I return, expecting the necessary ameliorations to have been effected in the interim of my absence, and find only that, under your directions, men have knocked a hole in the scullery so that the furnace cannot be used, pushed some dirty sacks into it, and vacated the work.

The position of affairs is perfectly intolerable and beyond all bearing. I do not precisely know what my rights are, and I apprehend that, since my architect is in the opposite camp, it is not to be anticipated that he will exactly inform me of them; but it is beyond the bounds of credulity that I am to be subjected to these persistent annoyances and refractory oppositions without power to extricate myself; and unless my architect and his builder *immediately* bestir themselves to make this house a human domicile instead of a lethal chamber for cats and dogs, I shall exercise my own resources and employ others who can be depended on to carry out what they engage to perform. My eventual demands on Grigblay for compensation are a matter for contingent consideration.

Yours faithfully,

Brash is certainly deserving of sympathy, for he is gloriously unaware that the whole of the trouble is due to his wife's interferences: he also, I think, deserves sympathy in that his manful effort at self-control has not proved equal to the length of his letter, but most of our sympathy must lie with Spinlove, who has the task of answering a letter which can only be fitly described as a "stinker."

[NEXT WEEK: XXI—THE CAT JUMPS ONCE MORE]

QUESTIONS THAT ARISE

Wallboard Sheeting

N. L. writes: "*A client wishes me to specify wallboard sheets for an old house about to be repaired. It is proposed to use these: (a) on rafters, instead of rough boarding; (b) for plaster panels in oak framing, as shown on the accompanying sketch, which will give an inch of air space between the wallboards.*"

[The above query was submitted to two of our experts, who have replied as follows.]

I have frequently used a wallboard as a base for plaster, and always with complete success. I have never employed it exactly in the manner shown in the querist's drawing, but under conditions which would produce similar behaviour.

In a case where sound-proofing was important, the wallboard was used on staggered studs; in another, the penetration of a borrowed light made necessary the visible abutment of plaster and timber.

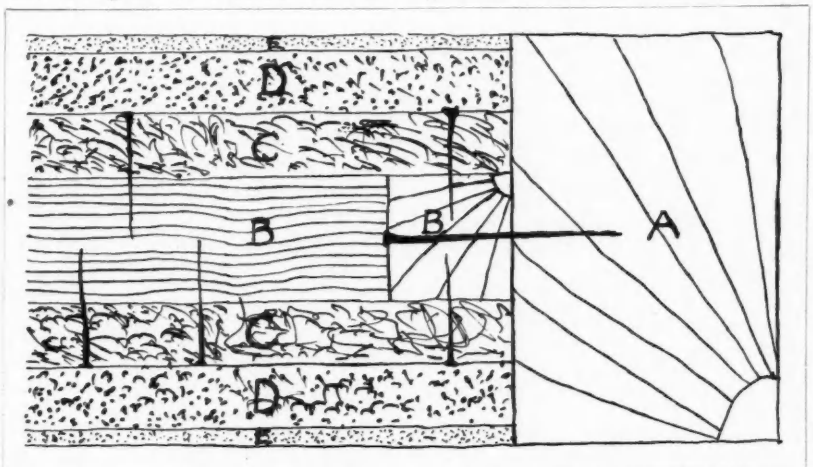
One builder stated that his experience of fibrous boards had led him to believe that buckling was inevitable owing to swelling on contact with wet plaster. An assurance was given by the vendors that the wallboard was not subject to this kind of failure, and the result converted both the architect and the builder.

Oak, of course, is liable to shrinkage, and the only weakness would appear to lie in the probability that the junction between plaster and studs would leave a gap. This may be concealed to some extent by grooving the studs to receive plaster, or, preferably, the studs should project slightly beyond the plaster face, and be grooved to receive both plaster and wallboard so that the joint is covered. A third method is to use a cover slip of oak of suitable section. The section of the cover slip will depend on the width of the studs. It should not be too thin or the edges will curl, and nails should be driven as closely as possible to the outside of the studs.

The inclusion of wallboards produces a much thicker partition or wall, and if in order to reduce this to a minimum the thickness of the studs is reduced, it is advisable to fix the intermediate members at an angle, the ends having been sawn as in herring-bone strutting to avoid splitting when the nails are driven.

Where large spans are necessary these fillets may slope from both ends towards the central stud, so preventing the centre from sagging, and making it possible to keep the cill clear of the floor. Felt underneath will prevent through draughts, and the skirtings (also slightly clear of the floor) will provide the lateral rigidity if well nailed to each stud. This procedure obviates to a large extent the sound transference which takes place when the thin diaphragm is securely anchored to floor joists continuous in both rooms.

I have had no experience of wallboard used externally, but as it provides a good key there seems to be no reason why it should not be so employed. Precautions against penetration of moisture could be taken by treating the finishing coat of plaster with a reliable waterproofing material. Wallboard is quite suitable for laying on rafters, and, when so used, its properties of non-conduction are valuable. If there is doubt about the soundness of the tiles it would be as well to put waterproof paper between the tiling battens and the wallboard, and an additional safeguard could be furnished by counter battens to prevent the water from being housed behind the horizontal battens. H. T.



A, *Oak stud.* B, *Fillets.* C, *Wallboard.* D, *Gypsum plaster.* E, *Lime plaster.*

With regard to your correspondent's two questions, I would point out that (*a*) Wallboard, used as underlining below tiles or slates forms an excellent draught-stop and insulator.

(*b*) Plaster adheres excellently to certain wallboards. Used as proposed, I should substitute cement-plaster for gypsum in the undercoating on the external side, and possibly add another waterproofing material thereto. The fillets and consequent fixing of the wallboards should not exceed 18 ins. in any direction, and it will not be overlooked that the straight joint next to the oak studs (where a close fit for fillet and wallboard sheets as shown is unlikely) may prove a source of weakness and admit wet—as in any case where filling material exposes studs both sides. E. G.

Joints in Flooring

T. G. writes: "*With reference to a query respecting the opening out of T. and G. flooring joints which was answered in your issue of September 13, I would like to state that I have recently had similar trouble in connection with a large contract, and should be obliged if you inform me where 'plastic wood' is to be obtained, and the method of applying it. I should also be glad to know if it has strong adhesive powers to the sides of the boards, or whether it can be easily picked out from floors which are not covered with carpets, etc.*

"*A remedy which has been mentioned to me is a mixture of equal parts of resin and tallow run in hot; and I should be glad to know if you or other readers have any experience of this method, and, if so, whether it has been successful after a certain period.*"

"Plastic wood" may be obtained through any reputable builders' merchant. It is applied like putty, has strong adhesive qualities, and hardens on exposure so as to form practically an integral part with the timber to which it is applied. It appears to be a cellulose composition.

I have had no experience in the use of a resin and tallow mixture for similar purpose. It sounds rather messy and likely to soften under high temperatures. F. G.

ANNOUNCEMENTS

Mr. F. E. Mennie, F.R.I.B.A., P.A.S.I., District Surveyor for Bethnal Green, has removed his offices to 1 Montfort House, Victoria Park Square, E.

The firms of Edwin T. and E. Stanley Hall, of 54 Bedford Square, W.C., and Easton and Robertson, of 36 Bedford Square, W.C., have entered into partnership under the name of Stanley Hall & Easton and Robertson. They will practise at 54 Bedford Square, W.C.

THE SKETCH CLUB

THIRTEENTH SESSION

PRIZE-WINNING DRAWINGS
in the last HOLIDAY SKETCHES Competition

AS has already been stated, the entries for the third and last Holiday Sketches Competition broke all records, and the task of adjudication was correspondingly difficult. Finally, choice for the first prize of Ten Guineas fell upon the one drawing submitted by "Mallet." On opening the sealed envelope, the identity of this competitor was revealed as :

Mr. Robert Mauchlen,
2 Collingwood Street,
Newcastle-upon-Tyne.

On this occasion two second prizes of Five Guineas each were due for allotment (one having been withheld from the last competition). These were awarded to :

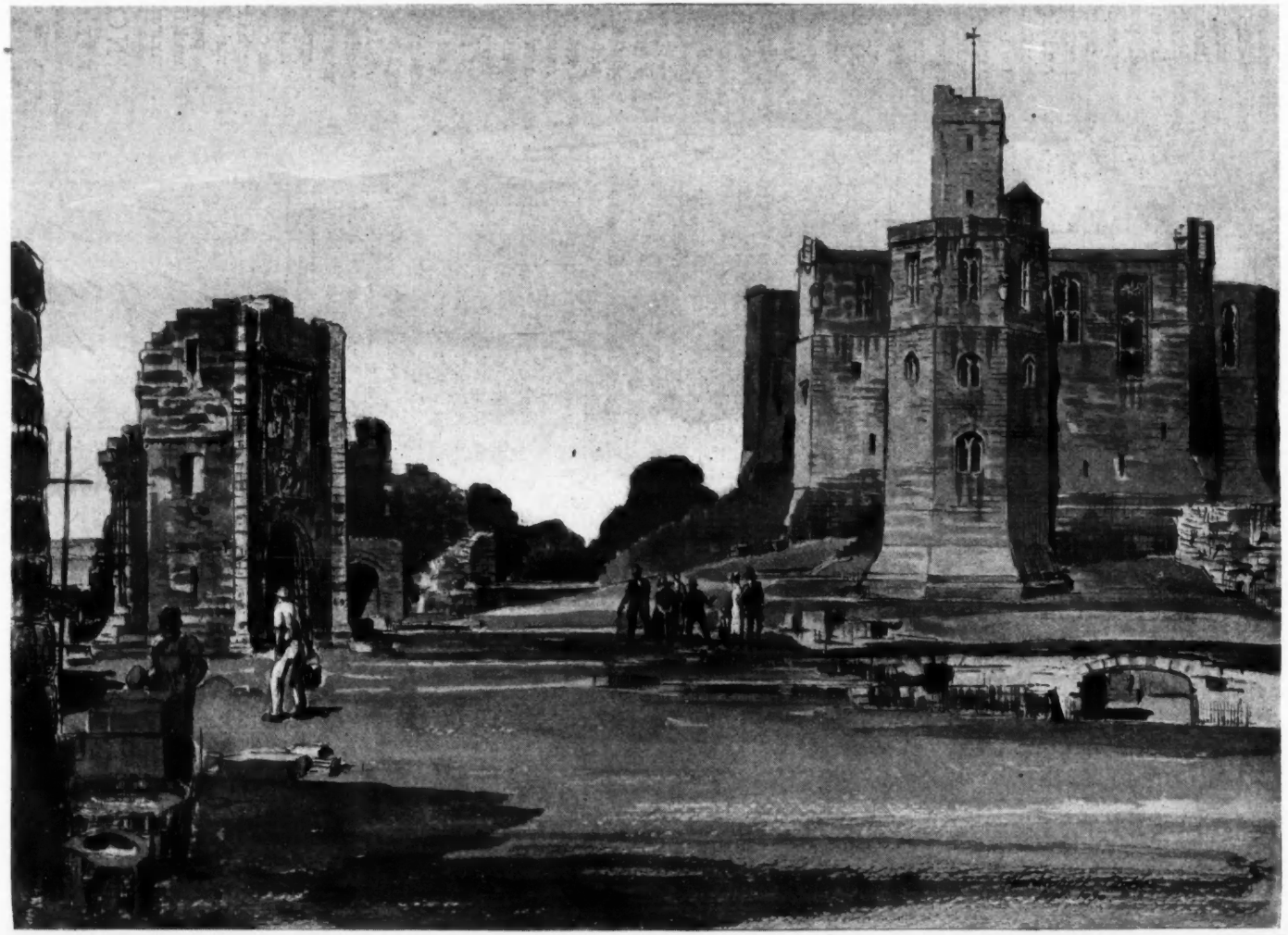
Mr. E. B. Musman ("Hopeless"),
7 Carteret Street, Westminster, S.W.1,

for his watercolour of "Dinard" ; and to :

Mr. Frederick W. Baldwin ("Shadows"),
Rectory Cottage, Whapload Road, Lowestoft,

for his pencil drawing of Waterhouse, Membury, Devon.

To these competitors the Editor offers his congratulations ; and to all, his appreciation of the enthusiasm which they have displayed throughout the series of competitions.



FIRST PRIZE (TEN GUINEAS).
Workworth Castle.

By Robert Mauchlen, Newcastle-upon-Tyne
(Sepia wash : 8¾″ × 12″)

Castle.

(8¾″×12″)

ONE has only to glance at the prize-winning and other drawings submitted in competition, which are reproduced on the four pages to which, in the attempt to do them something like justice, the Sketch Club is this week expanded, to realize that the art of sketching is very far from being lost. We never thought it was, but it was not anticipated that this series of three competitions would reveal so much talent, and of so varied a nature, as the events have produced.

It is worth while recapitulating the leading facts. The first competition produced sixty-five entries from eighteen competitors; the second, fifty-two from fifteen; and the third, 125 from thirty-six: a grand total of 242 drawings of all shapes, sizes and kinds. The first prize-winners have been: Mr. P. J. Westwood (June) and Mr. Robert Mauchlen (August). Second prizes have been secured by Mr. Alan Sherwin (June); Mr. Ronald Knight and Mr. Vincent Warrilow (July); and Mr. E. B. Musman and Mr. Frederick W. Baldwin (August).

One of the most interesting facts noted in the course of scrutiny has been the wide diversity of media employed, even by the same competitors. Pencil, of one kind or another, is easily first favourite, but watercolour and crayon have each had their adherents; while the paper used has varied from white to buff and grey, from a dead-smooth, chalk surface to extreme and hairy roughness. The point is that in most cases the choice has obviously been dictated by the desire for "quality," in strict relation to the subject-matter. Curiously enough, the proportion of pen-drawings has been comparatively small, and there has been less evidence of mastery here.



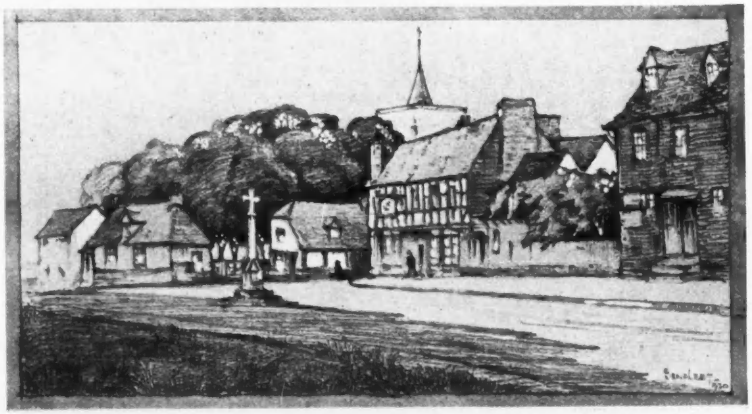
SECOND PRIZE (A)
(FIVE GUINEAS)
Dinard, Brittany.

By E. B. Musman,
Westminster
(Watercolour: 12½″×9″)



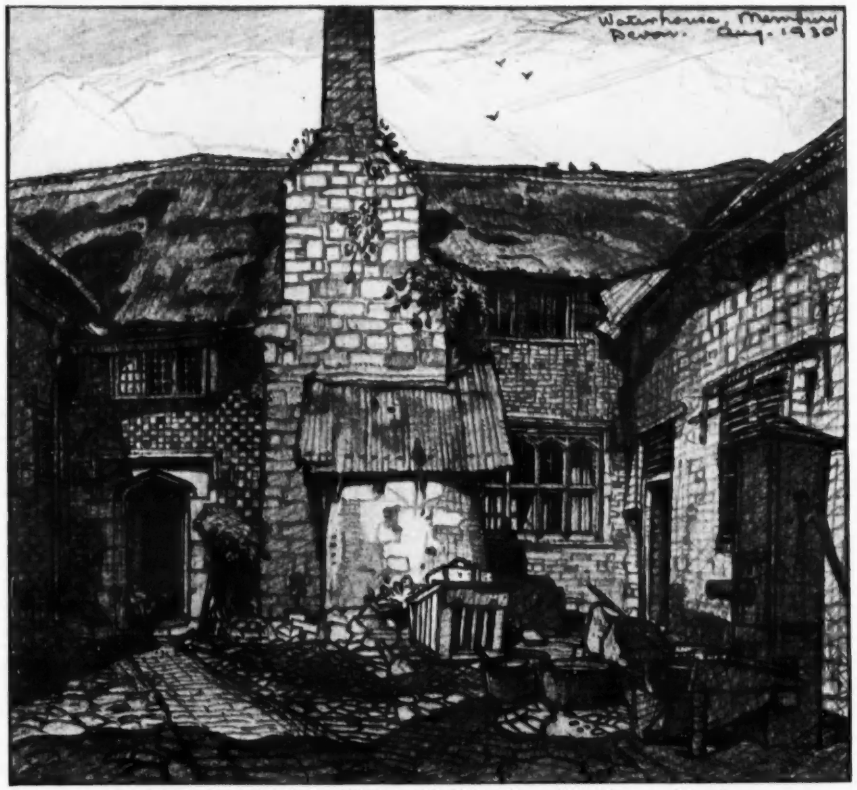
Rock, Vale of Membury, Devon.
By Frederick W. Palmer
(Pencil: 11¾″×6″)

The Anchor Inn, S. Benfleet, Essex.
By H. M. Luyken
(Pencil: grey paper: 11¾″×6″)





Chaddesley Corbett, Worcestershire.
By F. Palmer Cook. (Pencil : 7″ × 7″)



SECOND PRIZE (B) (FIVE GUINEAS). Waterhouse, Membury.
By Frederick W. Baldwin, Bowestoft. (Pencil : 7¼″ × 6¾″)



John Knox's House, Edinburgh.
By J. Maxwell Scott. (Pencil : buff paper : 7″ × 7″)



Stanton, the Cotswolds.
By F. Palmer Cook.
(Pencil : 9″ × 14″)



The Quay, Paimpol, Brittany
By E. B. Musman.
(Watercolour : 12¼″ × 6½″)



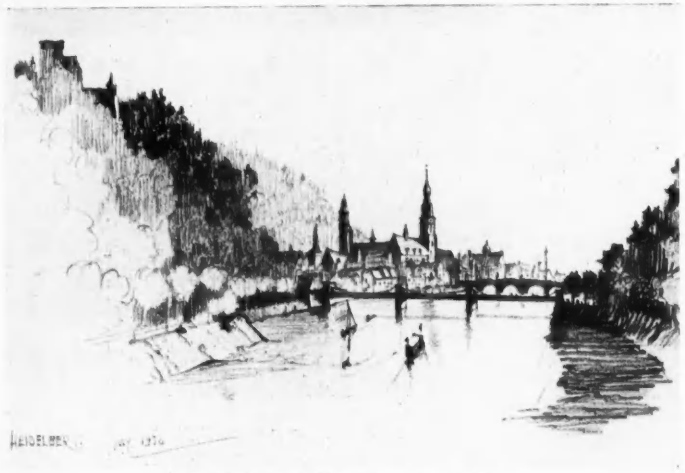
Via Raffaelo, Urbino
By Charles C. Spence.
(Pencil and wash : grey

Stanton, the Cotswolds.
By F. Palmer Cook.
(Pencil : 9″ × 14″)

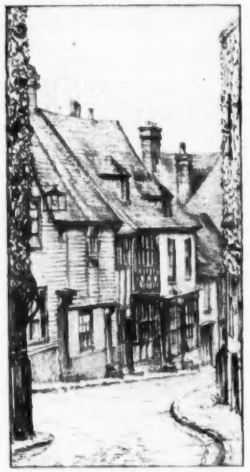
The Quay,
Paimpol, Brittany

By E. B. Musman.
(Watercolour : 12¼″ × 6½″)

Via Raffaelo, Urbino
By Charles C. Spence.
(Pencil and wash ; grey



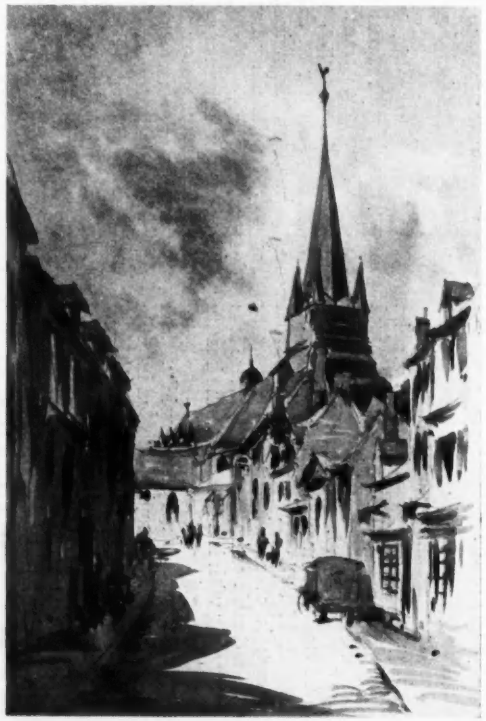
Heidelberg, looking west ; evening.
By A. J. R. Marshall. (Pencil : 10½″ × 7¼″)



Rye, Sussex.
By G.McKinlay. (Pencil: 4½″ × 9¼″)



London, W.C.1 ; fragment.
By W. E. Palmer. (Pencil and wash : 9¾″ × 7¼″)



Neufchatel, Brittany.
By E. B. Musman.
(Watercolour: 8½″ × 12¾″)



Street in Mantova, Italy.

Heilbronn Market Place.
By A. J. R. Marshall.
(Pencil : 7½″ × 10½″)



By Charles C. Spence.
(Pencil : 10¼″ × 14¼″)

THE SCARECROW OF INDUSTRIALISM:

A Call to Arms

BY THE VERY REV. HEWLETT JOHNSON

That the problem of cultivating beauty in modern industrial life must be radically faced was one of the main points in a paper on "The Claims of Beauty in Modern Life," read by the Dean of Manchester at the Annual Conference of Modern Churchmen. Below we print extracts from the address which claim the earnest attention of the architectural profession.

THE religious world has learned all too readily to acquiesce in an ugly civilization. It has permitted the ugly and the vulgar to invade the realms of worship. Most churches built during the last hundred years, for example, in industrial Lancashire are depressingly grim without and within. To see them recalls to my mind the question of the small boy who was dancing by his mother's side towards the seashore on an August day in a bright Welsh watering-place. Suddenly he stood stock still and, chilled and silent, whispered, "Mother, why do they need a church here?" His eye rested on a hideous chapel of Ruabon brick. It recalled the terrible churches and chapels of the industrial Lancashire town whence he came. They, and the circle of religion bound up with them, struck him as totally incongruous with the bright beauties of sand, sky and sea. The child's remark constitutes a fierce criticism of that divorce between religion and beauty which is characteristic of other places besides nineteenth-century Lancashire.

It is in our great industrial areas and amongst the sun-starved, beauty-starved populace that revolt most easily and perhaps most rightly springs. I recall vividly my own feelings as a young engineer in a large industrial town. My early youth had been spent in the country. I had seen cottage and manor, rich and poor, dwell peacefully side by side. I recall no feelings of revolt. Life was not ugly. I was as happy in the peasants' cottage as in my own home. Both had a beauty of their own. But suddenly plunged into a community where men, women and children were condemned to lifelong ugliness and gloom, whilst the wealth they helped to create departed to distant country homes and beautiful suburban villas; it was then that I awoke to a sense of outrage.

The problem of beauty must be radically faced in industrial areas and in the great cities, or its solution will never be found. Interest, as well as humanity, demands this drastic treatment of ugliness. For the industrial town is overflowing into the country in a double sense, and everywhere it is carrying with it a menace to the beauty which survives.

Times are changing rapidly. In former days the country flowed into the town and a bare trickle returned back to the country again. Industry was isolated and the country unpolluted. The old beauties were intact. Fine mansions, trim cottages, quiet lanes, and hedgerows where primroses, bluebells and honeysuckle bloomed were left inviolate. The industrial magnate could buy his country mansion and live in peace, forgetful of the waste he had left behind him.

Today all that is changed. It is easier now to return to the countryside, if only for a day. And it is increasingly difficult for the country to digest the mass of bad taste which pours daily into it. Those who live in spacious splendour in the country talk bitterly of the ugly stream which is overwhelming them—litter, charabancs, disorderly filling stations, clumsy concrete bridges and gaunt, treeless roads. Yet often it is they who are responsible for the lack of beauty. In the towns, chimneys, from the mills which they own, belch forth smoke. Their workfolk live in soulless streets, bounded by dumps and grassless fields. What sense of disciplined beauty can such a population ever hope to possess? Such desolate surroundings have killed the Englishman's innate sense of taste, colour, and form, and ruined the grave dignity of his common life. And when men issue forth from surroundings such as these—and a new mobility is enabling them to do so—they issue forth form-blind and colour-blind and reckless of a beauty they have never learned to see. The more industrious and successful hoard their savings until they too can escape to country places, and there build petrol stations and bungalows. The remainder can at least take their Sunday or holiday charabanc trip and litter the ground beside the country mansion. Thank God both alike have still the taste to prefer clean air to foul, and green fields to cinder-tips.

But there is more in it than that. Industry itself spills across the countryside. Commerce must congregate around stock exchanges, with an eye on the tape, an ear at the telephone, and a hand on the neighbour's door. Industry, on the other hand, can and does decentralize. The electric pylon and the motor-lorry are symbols of the change. Ready power and flexible transit send the factory everywhere. And unless industry itself, and all its surroundings, are rid of the dirt, disorder, ugliness and squalor which we now associate with it, there is small hope left of preserving or increasing our beautiful English heritage.

Happily the situation was never less hopeless than today. Ugliness in industry is as needless now as was ugliness in agriculture yesterday. If the rural villages of a bygone England could grow to be the simple and charming things they are, the industrial villages of the future England may also, in their turn, grow up beside them with a beauty and charm of their own; more formal and precise and geometrical perhaps, but as fit to take their place in the dignity of English life as the formal geometrical St. Paul's is fit to stand beside the freer Gothic of the Abbey. Industry has now no need to be dirty, ugly, or disorderly, and where it is so you see the hall-mark of inefficiency. Other lands are learning to produce all that we produce save the grime and disorder of the process. Nay, more; they are actually learning to produce in industry, and through industry, new and positive forms of beauty. I see glimpses of it everywhere, and notably in Scandinavian lands. These are worth a moment's fuller notice.

Take Sweden as a case in point. The Swedes make use of all that industrialism has to give, and as industrialists they are amazingly efficient. Incidentally there is no country in the world whose whole range of major industrial concerns can at this very moment show so phenomenally prosperous a balance sheet as Sweden can. Yet the ugly side of modern industrial life is wanting there. Order, method, cleanliness, and positive beauty are the rule. The Stockholm offices of the Swedish Match Factory are a feat of beauty. Grouping themselves about a great courtyard, which you enter through iron gates of splendid craftsmanship, their walls are open to the sun, snowy white above and pale-green marble beneath. In the centre is Carl Milles's fountain, surmounted by a charming emerald-green Diana. Poised on a lofty pedestal, she startles the graceful forest beasts in the four quarters of the court. It is an exquisite creation. Let the efficiency of the Swedish Match Factory speak for itself throughout the world: here it is seen at home, and it walks hand in hand with beauty.

And if you want to make a peculiarly odious comparison, visit the Odelberg pottery works of Sweden and compare them with the works you may see today in our own English Staffordshire.

The basis of all this Swedish beauty in industry, it is pertinent to note, is a broad one. It rests upon a studied artistry of common life. You may see this artistry in the Swedish homes. You may see it in tramcars. The conductor who takes your fare slides the coins of different sizes each into its proper slot in a tiny casket on his belt, and releases in a moment the precise sum needed for the change. No fumbling and no disorder. You may see it in restaurants. I never saw a dirty table, or a slatternly maid, in all the weeks of my stay in Swedish towns and villages.

Who can wonder that the beauty of such a land is crowned by a town hall that has been aptly described as the noblest building which our age has yet produced? Its story reads like an ancient legend: frescoes wrought by a royal prince; councillors' chambers clothed with tapestries from noble homes; while the thousand copper plates which roof the whole with an emerald canopy are the separate gifts of the less wealthy citizens, each zealous to finish a task which a big-hearted municipality had conceived too nobly for its purse. To describe the fierce beauty of Stockholm's Town Hall would lead me too far afield. But it shows what men of our own time can do; and to see it is to understand why architects and men of taste cross a continent and a world to feast upon it.

From Sweden let us return to England and its possibilities. Our fields and villages are worth preserving, and the industrial decentralization promises to bring them happily within reach of increasing multitudes.

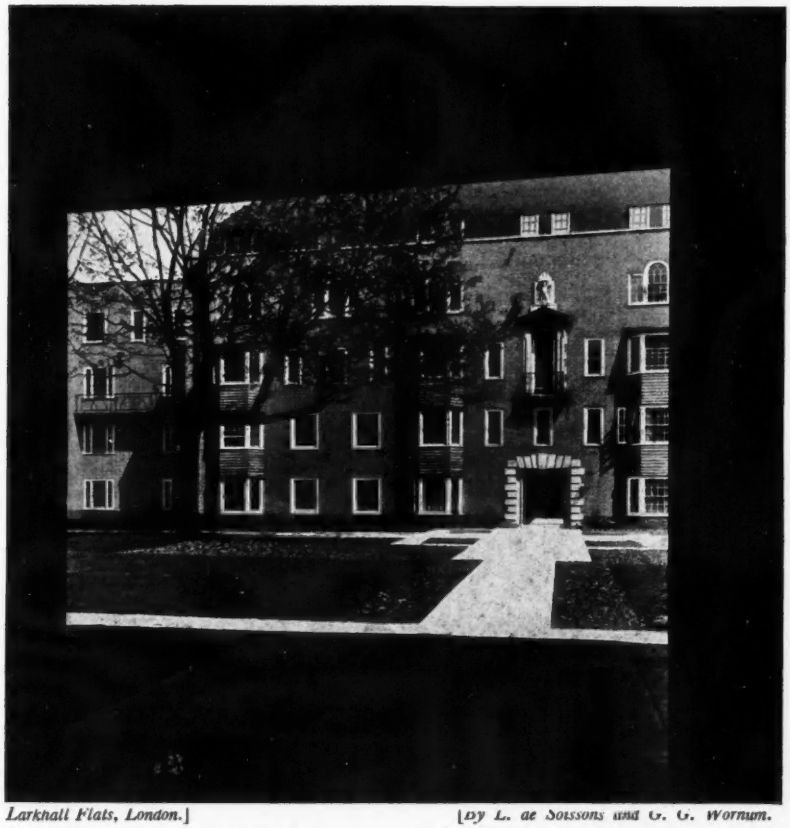
So are our English country towns worthy of preservation. Their existence is at the moment precarious. Road traffic threatens them. Road lorries thunder through Oxford streets, disturbing old foundations and wrecking ancient calm. Innumerable beauties are sacrificed as congestion grows. Towns like these are bottlenecks on great high roads, and if we would preserve their beauties traffic must be diverted along loops; and well-planned loops serve the double purpose alike of controlling the encroachment of industrial works and preserving the town unspoilt, a delightful companion to a new and well-designed industrial area. Park-like zones should guard an ancient town from all encroachments, and give each child and adult a chance of moving among green things and simple beauties. Nuremberg preserves its classic form and features like a jewel in the centre of the modern industrial town which encircles it beyond the city ramparts and the girdle of green fields.

More important still, however, is the creation of new beauties; and they must be beauties expressive of our present age, as the Parthenon expressed the soul of Greece and Chartres that of the Middle Ages. Preservation is only half our task, and antiquarian zeal is no substitute for life. We must bring out of our treasure things new and old; we should do well to observe the point of emphasis. We must learn from the past and dare for the future. England is to be more than a museum.

The past has principles to teach us, and chiefest of these is order, proportion, reticence and emphasis. All classical cities of the past speak with the same voice. Take Siena. Its houses are standard in size; its roofs of equal height; and all are fashioned with a uniform and beautiful brick. This presents the quiet and unexciting background where the common citizen learns and practises the dignity of restraint. It presents the foil against which public buildings stand forth in splendour of planning and richness of material—the great town square, the town hall and the cathedral, splendid alike in curve and space and glowing in marble and gold. And the same is true of Venice, where uniformity marks the houses flanking the quiet canals and quiet streets and provides a fitting emphasis for the mighty piazza and the splendours of Campanile, Doge's Palace and St. Mark's Cathedral.

Would that such order, reticence and suppression marked Regent Street in London, or Market Street in Manchester, with their sky-line ragged and restless, fatiguing the eye by the babel it sees as the ear by the babel it hears.

Restraint and alignment must as surely be the notes of the classic city of tomorrow as they were the notes of the classic city of yesterday. To copy the precise form in which this principle embodied itself is futile. It is the spirit, not the letter, that counts. But the principles of order and restraint are themselves eternal, and within their beautifully restricted lines there is ample scope for individuality. And never, perhaps—to turn again to this special application, the city street—was it so easy to secure such unity of skyline in our cities as it is today, when steel and concrete offer us strong flat roofs. What splendours Regent Street might have afforded to a wiser people, with a noble sweep of cornice and balustrade from one end to the other, and accommodating a



Larkhall Flats, London. [By L. de Soissons and G. G. Wornum.

"Glimpses of the new possibilities we may get in Sir Theodore Chambers's Larkhall flats at Clapham, where, despite the threefold greater population which he houses, an effect of spacious and parklike surroundings replaces the old plainness and congestion."





Swedish Match Factory Offices, Stockholm.] *[By Ivor Tengbom.*

" The Stockholm offices of the Swedish Match Factory are a feat of beauty. Grouping themselves about a great courtyard . . . their walls are open to the sun, snowy white above and pale-green marble beneath. In the centre is Carl Milles's fountain, surmounted by a charming emerald-green Diana. Poised on a lofty pedestal, she startles the graceful forest beasts in the four quarters of the court. It is an exquisite creation."

secondary street along its summit lined with flowers and shrubs and open restaurants! But it is vain to dream of noble cities till we provide clean ones. Dirt destroys beauty and thwarts its creation.

It is our duty to create, not only to preserve or to avoid. We must create beauties which shall be really expressive of the age we live in, and embody in emotional form its achievements. The nature of these new beauties already begins to shape itself. The bodywork of our motor-cars shows it. The lines and bonnet of a Vauxhall car thrill me, and I like them none the less because they are mass-produced; indeed, it is time we ceased to deplore mass-products as necessarily inartistic. The air liner is beautiful. The bridge and promenade deck of an ocean steamer are beautiful. I would even be so bold as to say that an electric pylon has a beauty of its own as it strides across the countryside. To me at any rate it is the symbol of the cleanly power; and it is a masculine thing. M. le Corbusier shows, in a fascinating analysis, how close is the affinity between cleanness of line and directness of purpose in the modern vehicle on the one hand, and the Parthenon of Pheidias or the apses of Michelangelo at St. Peter's Cathedral in Rome on the other. Both result from a studied selection crowned by the touch of æsthetic genius.

It is in this direction that we must look if we are to create the fundamentals of a beautiful environment. For the prime essentials in this regard are beautiful houses, beautifully placed, flooded with air and light, and in intimate contact with green and growing things.

At the moment the places where we dwell and work are, in general, beautiful neither in themselves nor in their planning. Our homes are ill-thought-out. They take no adequate account of modern needs and possibilities. They are not standardized.

We want the standardized house; that is, the house which takes account of modern demands for air and light and proper heating; the house in which windows are large, walls thin and built of heat-preserving and sound-absorbing materials. Thick walls are not the warmest, and they absorb light by deep abrasures. We want the house where no space is wasted, no unnecessary angles give access to dirt or obstruct the vacuum-cleaner, and where the roof is flat and used as a solarium; houses which produce a sense of calm and require a minimum of labour to run them. Steel, concrete, and synthetic materials can give us all we need, and when such houses are mass-produced they can be provided at a fraction of the present cost and graded according to our need as cars are graded from a Baby Austin to a Rolls-Royce.

And when once this standard house appears, then, as le Corbusier points out, the real skill and genius of the architect can begin its work. The touch of genius will play around the common given elements—the windows, doors, roofs and wall spaces. Line, proportion and mouldings will undergo subtle changes. Like the apses of St. Peter's, or the cornice of the Parthenon, the mathematical and classical quality will enter into them. The perfect profile and contour will appear. A new style, expressive of our own age, will be born, and our emotions will be touched to a more exalted tone by the daily environment of life.

So much for the beauty that we anticipate in the modern house unit; a beauty gathering up and expressing of all that is finest in, and of, a mechanical, scientific and hygienic age. A wide uniformity there may be. That in itself need not militate against beauty; the bricks of Rome at its best were uniform and beautiful; it was in their grouping and composition that variety entered in. At the same time, though I conceive of a whole series of standardized houses, some large, some small, and some medium-sized, and each grade varying according to its functions, I should be the last one to rule out marked touches of genius or individuality where these can be created or afforded. It is in the interest of men of limited means, and that all may be housed, and housed in dignity, and that certain broad and grand lines in house structure may be evolved, that I plead for standard houses. We turn to the groupings themselves; to the

village, the garden suburb, and the city. Natural features must be woven into each as part and parcel of the whole. A prime element in the charm of the Parthenon consists in the use made of the distant horizon in the make-up of its theme. Art and nature blend; the two beauties hang together and each exalts the other. So the new beauties of building and grouping will tend to ally themselves on all hands with nature. In place of the present ugly rows of slum or villa houses there will be bold and rich and expressive combinations of the various standard houses, of whatever order these may be. Glimpses of the new possibilities we may get in Sir Theodore Chambers's Larkhall flats at Clapham, where, despite the threefold greater population which he houses, an effect of spacious and parklike surroundings replaces the old plainness and congestion. And the same effect of spaciousness, and the entrance of light and air, and the play of water in pool and fountain, marks equally the new Mattiottihof municipal tenements in Vienna.

The decentralization of industry gives us at this very moment just the opportunity we seek. The old congestion of industrial areas is breaking up, and with it may go the real monotony of the old ugly unit houses and their entire banishment from natural beauty. A new grouping of finely-designed unit houses surrounding such an industrial unit as Messrs. Heinemann's splendidly-designed Windmill Press at Kingswood, with its classical façade, its lawns and flower-beds and sedate collegiate character, will create in the English industrial village a beauty no whit behind the noblest beauties of the rural village of the past.

Turn to the city of the future. Rid of its smoke and industrial operations, freed too from the immense congested populations which these involved, and with its own commercial workers housed in suitable garden suburbs, the city of the future can become as nobly expressive of our age and restful to work in as today it is mean and meaningless and huddled and fatiguing. We must do with the city what we have already done with the workshops of industry. I contrast the Ford or Morris workshop of today with the shops I knew thirty years ago. Space, restraint, order, cleanliness, lightness, brightness, fitness reign, where once all was dark, dirty, huddled and cramped. Though it looks less busy, it is a thousandfold more efficient. Here is the model for our cities.

I think of my own Manchester. Its streets are narrow and congested, the winding lanes of an old market town are still made to serve the needs of traffic a hundredfold greater than the traffic for which they were designed. Consequently we possess vehicles which are capable of travelling sixty miles an hour, yet must crawl along at four. There is the tedious journey into town in the morning and the struggle out at night. Offices are approached through narrow streets and narrower corridors: most of them are dark and noisy, close to the dust and din of the street. We suffer from wear and tear. Beauty is banished; for a hurried life is not a beautiful life.

If we would really face the problem of the beautiful city, and it is there that most men spend the bulk of their conscious hours, we had better take seriously to heart the admirable recommendations of the Town Planning Congress at Strasbourg in 1923; recommendations which at first sight seem hopeless of achievement until we remember the possibilities that lie hidden away in the engineers' concrete and steel. Four principles are laid down: (1) We must de-congest the centres of our cities and facilitate our traffic; (2) we must increase the density of our cities and bring about the close contact demanded by business; (3) we must increase the means by which traffic can circulate, i.e. we must modify the conception of the street, which has become useless for modern transport needs; and (4) we must increase the area of green and open spaces.

If people would have clean cities and fine habitations and natural beauty unpolluted all around them they must work for these things in unison.



Windmill Press, Kingswood, Surrey.] [*By Lord Gerald Wellesley and Trenwith Wills.*

"Such an industrial unit as Messrs. Heinemann's splendidly-designed Windmill Press at Kingswood, with its classical façade, its lawns and flower-beds and sedate collegiate character, will create in the English industrial village a beauty no whit behind the noblest beauties of the rural village of the past."

D

SOCIETIES AND INSTITUTIONS

SMOKE ABATEMENT IN SHEFFIELD

Commenting on the report on research work at Sheffield, during the National Smoke Abatement Conference at Leicester, Mr. Evans said there were great possibilities for coke-oven gas for the majority of Sheffield products. Sheffield was the centre of a very big coke-oven industry, and he thought that the use of this gas as fuel, in the place of raw coal, would help to solve the city's smoke problem in respect of as much as 80 per cent. of its products.

Dr. E. W. Smith, London, pointed out that there were forty million cubic feet of gas per day generated in the coke ovens of the Sheffield district which could be converted for use for town and other purposes. If this could be used for industrial purposes, he contended that it would go a long way towards the cure of the smoke nuisance.

Mr. W. Asprey, chairman of the Sheffield Public Health Committee, said it must be remembered that the manufacturers had themselves already admitted that the emission of a great deal of black smoke was unnecessary. He was watching with great interest the researches of the Sheffield University into the manner in which use could be made of the smoke.

MEDIÆVAL ARCHITECTURE

Sir Banister Fletcher, P.R.I.B.A., F.S.A., at the Central School of Arts and Crafts, delivered on Wednesday last the introductory lecture of a course of twenty-four lectures on Mediæval Architecture, given under the auspices of the University of London.

Sir Banister dealt first with the nature of the course and explained that he would deal with the study of architectural history on broad lines from a popular point of view, tracing its evolution in the different countries in Europe.

Sir Banister illustrated his lecture with lantern slides, of which some twelve hundred will be shown during the course, thus making the study of this subject easy and enjoyable. He showed that mediæval architecture was a continuous evolution from the round-arched or Romanesque period, to the pointed arch of the Gothic period, and was the result of forces and tendencies underlying the life of mediæval times.

THE APPRECIATION OF ARCHITECTURE

"The Appreciation of Architecture" is the subject of the weekly series of Portsmouth University Extension Lectures, which commenced on Friday, September 27, in the Examination Hall of the Municipal College, Portsmouth.

Mr. A. S. Oswald, M.A., explained, in his first lecture, that he wished to consider architecture as embracing the whole realm of buildings, utilitarian included. The fact that a building was useful did not preclude it from being beautiful.

He pointed out that there were four approaches to the subject upon which depended the various viewpoints popularly adopted. The first was the literary and romantic approach, in which there was a distinct appeal to the emotions. There was also the ethical standpoint, an approach greatly favoured by Ruskin, and in a slightly different form by William Morris.

Another conception was that of the archæologist. Archæological values, he said, should not be confused with artistic values. The last approach was that of the scientist who maintained that good architecture was good construction truthfully expressed.

The lecture was illustrated by lantern slides.

R.I.B.A. EXHIBITION OF DESIGNS

The designs of students of schools of architecture recognized for exemption from the R.I.B.A. Final Examination will be exhibited in the R.I.B.A. Galleries, 9 Conduit Street, London, W.1, from October 14 to 20, 1930, inclusive, between the hours of 10 a.m. and 8 p.m. (Saturday, 10 a.m. and 5 p.m.). The R.I.B.A. Silver Medal for Recognized Schools and £5 in books is awarded for the best set of drawings submitted.

The designs of students of schools of architecture recognized for exemption from the R.I.B.A. Intermediate Examination will be exhibited in the R.I.B.A. Galleries from October 24 to 31, 1930, inclusive, between the hours of 10 a.m. and 8 p.m. (Saturday, 10 a.m. and 5 p.m.). The R.I.B.A. Bronze Medal for Recognized Schools and £5 in books is awarded for the best set of drawings submitted at this exhibition.

UNIVERSITY OF LONDON SCHOOL OF ARCHITECTURE

The new session at the Bartlett School of Architecture, University College, opened on Monday, October 6. New students were received on Monday and Tuesday from 10 a.m. to 1 p.m. Students of the evening course in architectural design will be received at an inaugural meeting today, October 8, at 5.45 p.m.

A room in which the art possessions of the College have been brought together and made available for students and members of the public was opened on September 30. It has been provided through the generosity of Sir Joseph Duveen, Bart., and has been designed by Professor A. E. Richardson, F.R.I.B.A. An outline inventory of the prints, etchings and drawings, including the Grote and Vaughan bequests, has been prepared by Mr. A. M. Hind, Assistant Director of the Department of Prints and Drawings at the British Museum.

Among the public lectures arranged for the first term is a course by Miss E. Jeffries Davis, Reader in the History of London, on "Re-plannings of London, *c.* 1520–1920."

The full programme may be obtained from the Secretary, University College, W.C.1. A stamped addressed envelope should be enclosed.

COMPETITIONS OPEN

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invites architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor: A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs: October 20.

October 30.—The General Building Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums: £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs: October 30.

November 30.—The Burton-on-Trent Local Education Authority invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor: H. T. Buckland, F.R.I.B.A. Premiums: £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs: November 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young

Communist Square), and will contain a mass musical stage, and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

February 1.—The Norwich Corporation invite architects practising in Norwich and in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, OCTOBER 8

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Mediæval Architecture: A Typical Mediæval Cathedral." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Inaugural meeting of students of the evening courses in architectural design. **5.45 p.m.**

ILLUMINATING ENGINEERING SOCIETY. At the Lighting Service Bureau, 15 Savoy Street, Strand, W.C.2. Report on Progress in Illuminating Engineering, prepared by the Technical Committee. Also Exhibition illustrating developments in illuminating engineering. 7 p.m. (Light refreshments, 6.30 p.m.) **7 p.m.**

HOUSING AND HEALTH EXHIBITION, Kelvin Hall, Glasgow. Until October 18. 10 a.m. to 10 p.m. **10 a.m.**

THURSDAY, OCTOBER 9

C.P.R.E. Third Annual Conference, to be held at Welwyn Garden City. Until October 11. Among the papers to be read are the following: "The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields." By Sir Lawrence Chubb. "Town and Regional Planning in their Relation to the Objects of the C.P.R.E." By Sir Theodore Chambers, K.B.E., F.S.I. "Education and Citizenship in their Relation to the Safeguarding of the Countryside, etc.," and "Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds." Each paper will be open to discussion.

UNIVERSITY OF LONDON, University College' Gower Street, W.C.1. "Recent Discoveries in Egypt." By Reginald Engelbach. Chairman: Professor Sir Flinders Petrie, F.R.S. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTION OF WELDING ENGINEERS. At the Engineers' Club, Manchester. "The Training of Operatives in the Welding and Cutting Industries." By J. Ryder.

FRIDAY, OCTOBER 10

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Sessional Meeting to be held at the Guildhall, Nottingham. Welcome by Councillor E. H. Lee, Chairman of the Health Committee, followed by tea, 4 p.m. A Discussion will take place on "River Pollution," to be opened by Alderman A. R. Atkey, J.P. 4.30 p.m. Chairman: Charles Porter, M.D., B.SC., etc. **4 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Associate Members and Graduate Section. Dinner and Smoking Concert, to be held at the National Hotel, Upper Bedford Place, W.C.1. **7 p.m.**

SATURDAY, OCTOBER 11

Sunrise, 6.15 a.m. Sunset, 5.18 p.m.

ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, S.W.1. Meet at the Guildhall, Nottingham, at 9.15 a.m. for visits to the Factory and Welfare Department of Boots Pure Drug Company, Ltd. Followed by an inspection of the New Council House at 11.30 a.m. **9.15 a.m.**

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. North-Eastern District Meeting at the Council Offices of the Chester-le-Street U.D.C. Various Visits of Inspection to Durham County Road Works. **1.45 p.m.**

TUESDAY, OCTOBER 14

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visits to (a) The New "Atmospheric" Cinema, Richmond Hill. 12 noon. (b) The Star and Garter House, Richmond Hill. 3 p.m., and (c) Ham House, Petersham, the residence of the Earl of Dysart. p.m. **12 noon.**

WEDNESDAY, OCTOBER 15

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "The Character of Mediæval Architecture." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. First of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

THURSDAY, OCTOBER 16

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. First of eight public lectures on "Greek Myths and their Representation in Art." By Professor E. A. Gardner. (Lantern Illustrations.) **5 p.m.**

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to Cement Marketing Company's Laboratory, Portland House, Tothill Street, Westminster, S.W.1. (Party limited to 30.) **7 p.m.**

SATURDAY, OCTOBER 18

Sunrise, 6.27 a.m. Sunset, 5.2 p.m.

MONDAY, OCTOBER 20

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Public Lecture on "More Roman Towns in North Africa." By W. N. Neech, M.A. Chairman: Professor H. E. Butler, M.A. (Lantern Illustrations.) **5.30 p.m.**

BIRMINGHAM WELFARE CENTRES COMPETITION. Latest date for submission of designs.

TUESDAY, OCTOBER 21

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Art." By Gui St. Bernard. **8 p.m.**

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Cecil Sharp House, 2 Regent's Park Road, N.W.1. H. M. Fletcher, the architect, will describe the building. **8.30 p.m.**

WEDNESDAY, OCTOBER 22

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Romanesque Period in Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Second of a course of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTE OF FUEL. Annual Conference to be held at the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2, until October 23. Evening: Annual Dinner to be held at the Connaught Rooms, Great Queen Street, W.C.2, at 6.45 p.m.

THURSDAY, OCTOBER 23

UNIVERSITY OF LONDON, University College, Gower Street, W.C.2. Yates Lectures. Second of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor E. A. Gardner. (Lantern Illustrations.) **5 p.m.**

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by T. J. Clark, A.I.STRUCT.E., of the British Portland Cement Association. **7.30 p.m.**

SATURDAY, OCTOBER 25

Sunrise, 6.40 a.m. Sunset, 4.48 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the works of Messrs. Johnson, Dartford. **2 p.m.**

TUESDAY, OCTOBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "English Ironwork." By Edward Yates. **7 p.m.**

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Architecture: the Citizen's Part." By Clough Williams-Ellis, F.R.I.B.A. **8 p.m.**

WEDNESDAY, OCTOBER 29

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Last of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture The Romanesque Period in North and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

THURSDAY, OCTOBER 30

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Third of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. First of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

BURTON-ON-TRENT COUNCIL SCHOOL COMPETITION. Latest date for submission of designs.

SATURDAY, NOVEMBER 1

Sunrise, 6.52 a.m. Sunset, 4.34 p.m.

TUESDAY, NOVEMBER 4

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Public lecture on "Egyptian Statues." By Miss M. A. Murray. (Lantern Illustrations.) **5.30 p.m.**

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Industry." By Sir Walter Layton, C.H. **8 p.m.**

WEDNESDAY, NOVEMBER 5

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in North Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. Sessional Meeting. "The Operation of the Heat Pump, and its Possible Applications to Heating Problems, particularly Swimming Bath Heating." By T. G. N. Haldane, M.A., A.M.I.E.E. **7 p.m.**

INSTITUTION OF SANITARY ENGINEERS. Annual Dinner to be held at the Holborn Restaurant, W.C. **7 p.m.**

THURSDAY, NOVEMBER 6

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lecture. Fourth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Second of a course of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Building: Its Sculpture and Painting." By Professor E. S. Prior. (Lantern Illustrations.) **5.30 p.m.**

TUESDAY, NOVEMBER 11

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Life and the Countryside." By J. W. Robertson Scott. **8 p.m.**

WEDNESDAY, NOVEMBER 12

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in Central and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

LAW REPORT

BLOCKS OF FLATS—ASSESSMENT POINT

Towle v. *Improved Industrial Dwellings Co., Ltd. Court of Appeal. Before the Master of the Rolls and Lords Justices Romer and Slesser*

THIS was an important appeal, which was partly heard at the end of the last law term, and which will occupy the attention of the Court on its resumption next week for several days, and raised a question as to the method of assessing blocks of flats for income-tax purposes.

The appeal is by the Improved Industrial Dwellings Co., Ltd., from a judgment of Mr. Justice Rowlatt, sitting in the King's Bench Division, allowing the appeal of the Crown, through Mr. Towle, its Inspector of Taxes, from a decision of the Income Tax Commissioners, and dismissing the company's cross-appeal.

Mr. Latter, K.C., for the appellant company, said the flats in question were Nos. 1 to 54 a, b, c and d, Morrison Buildings, South Commercial Road, Whitechapel, which were used for the housing of the working classes. Hitherto the flats had been assessed as separate flats, and the company contended that they were aggrieved in being deprived of the legal right to claim allowances of income tax " in respect of voids of one or more flats " when the whole of the block in which they were grouped was not empty. The company also complained that under such grouping a reduced scale for allowances for repairs would be allowed as compared with a larger allowance made when each flat was separately assessed. Each flat had its own front door and was approached from landings from flights of stairs. There was no door at the foot of the staircase and the ground-floor passage was open to the street. Each flat was self-contained. The dwellings were within the area to which the Valuation (Metropolis) Management Act, 1869, applied, and were duly assessed in the 1925 valuation list as separate flats and not in groups by the Stepney Borough Council, there being no objection by the Inspector of Taxes. The gross values of the respective flats as several hereditaments were not liable to be reassessed for rating purposes during the quinquennial period ending in 1930, and allowances for income-tax purposes in previous years for repairs in respect of the flats had been allowed hitherto at the rates set out in the Finance Act, 1923, and allowances had been made for any period for which any flat might have been void. The contention of the appellant company was that each of the flats was in law and in fact a separate house for all purposes of the Income Tax Acts, and was to be assessed and charged separately. The Crown submitted that the amount of the assessment was the amount of the assessment on each group of flats. The Commissioners determined that the gross assessments of the several flats made under the Act were conclusive for the purposes of the Income Tax Acts during the quinquennial period, 1925–30, but if in the opinion of the Court that determination was wrong and the flats could be re-assessed during such quinquennial period, then the Commissioners determined that under the Income Tax Rules flats should be assessed together in blocks or groups consisting of those flats approached from the street by a separate entrance. The Crown appealed to Mr. Justice Rowlatt for the first determination and the company for the second. Mr. Justice Rowlatt decided that the contention of the Crown was right and allowed that appeal with costs, holding that the argument for the company was not sound, because when one had entered within the main walls and under the roof of the buildings, one had entered the house or the building which included the several tenements. He therefore dismissed the company's appeal. It was from this that the company now appealed.

The Attorney-General, Sir William Jowitt, K.C., appeared for the Crown.

Before giving judgment, the Court had before them the case of Johnstone (Inspector of Taxes) *v.* the Consolidated London Properties, Ltd., which raised, *inter alia*, a similar point in regard to flats at Kensington.

The hearing of both appeals stood over till the Court resumes its work next month.

Telephone and Letter Boxes

Mr. P. Morton Shand, writing in the current issue of *The Architectural Review* on " Recent Tendencies in Post Office and Telephone Exchange Design in Great Britain," says :

Sir Giles Gilbert Scott's very dignified steel cabinets (figure two) are by far the best street telephone boxes that any country can boast of. All that they lack is a wide shelf on which the telephone directory, still left to swing in space, can be comfortably laid open and consulted. The earlier G.P.O. telephone boxes are unsatisfactory because they were designed in concrete as though the material employed were wood. Nothing can be said in favour of their varnished timber prototypes.

Whatever strictures may be passed on the architectural shortcomings of the G.P.O., it must never be forgotten that it is the only postal administration which has ever perfected a really satisfactory type of letter-box. But that was long ago, and the design was pretty certainly no gentlemanly architect's job. The dear old Victorian pillar-boxes, as cast by those honest iron-founders, Handyside of Derby (figure three), and robed in its splendid scarlet, is as conspicuous as it is good to look upon. No industrial design ever embodied " fitness for purpose " more fitly or to better purpose. The oval, double-slotted variety is rather less prepossessing. Latterly the sovereign beauty of its proportions has been grievously impaired by reducing the girth of the sturdy column. Even the earlier (Cochrane) hexagonal model (figure one), with its acorn finial, has an undeniable classic elegance. Original specimens of both bear the interlaced " V.R." monogram.



figure one Cochrane pillar box, circa 1866.

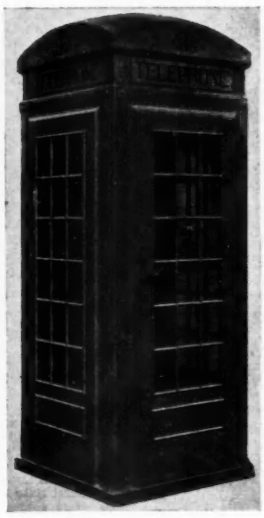


figure two Standard sheet steel telephone cabinet, designed by Sir Giles Gilbert Scott.



figure three Handyside pillar box, circa 1878.

TRADE NOTES

Pumice as a Building Material is the title of a new booklet just issued by Messrs. J. H. Sankey and Son, Ltd. This material, of volcanic origin, consists of trachytic pumice-rock fragments varying in size approximately from 0·04 to 1·5 in. with a certain percentage of "fines," and has a specific gravity of about 0·85. Among the advantages claimed for pumice concrete are the following: (*a*) Less dead weight; (*b*) entire absence of sulphur and other detrimental chemical ingredients; (*c*) high fire-resistance (official tests up to 2,000 Fahr.); (*d*) sound and heat insulator; (*e*) proof against both condensation and damp, by reason of its cellular texture; (*f*) an easy medium for fixing by cutting, nailing, or screwing; (*g*) excellent bond for mortar, perfect key for plaster. Pumice aggregate is also regarded, owing to its lightness, hygienic and other properties, as particularly suitable for making concrete either cast *in situ* or in precast blocks. The importance of trachytic pumice as an aggregate for concrete has, it is said, been recognized on the Continent for nearly eighty years. The usual proportions of pumice and cement for close concrete work are as follows:

For floors—4 parts of coarse pumice, 2 parts of fine pumice, 1 part of Portland cement.

For walls (*in situ*)—From 6 to 8 parts of pumice to 1 part of Portland cement.

The following official analysis gives the composition of an average sample of pumice ("Bims Sand"): Silica, 61·0 per cent.; alumina, 21·0 per cent.; iron oxide, 4·0 per cent.; calcium oxide, 1·5 per cent.; alkalis, 8·0 per cent.; loss on ignition, 4·5 per cent.

Pumice aggregate has recently been supplied for use in the construction of the following buildings: Masonic Peace Memorial, Great Queen Street, W.C.; Lloyds Bank, Ltd., Teddington; Hitchin Boys' Grammar School; Bon Marché, Brixton; Ladies' Carlton Club, Grosvenor Place, S.W.; Electricity Sub-station, East Ham.

*

In a new catalogue on scientific central heating, just issued by Messrs. Hope's Heating and Lighting, Ltd., are descriptions and illustrations of typical oil-fired installations carried out by the company in domestic buildings, commercial buildings, churches, hospitals, schools, office blocks and residential flats, and in engineering works and factories. The plant is automatic from the time the electric current is switched on, the burner starting and stopping by the thermostatic controls. The oil is atomized mechanically and sprayed as a fine mist into the firebox of the boiler. It is mixed with low pressure air in the correct proportion, ignited by electric spark, and completely burnt. The burner may be controlled automatically by a thermostat fixed in the heated building. This instrument is sensitive to, and operated by, a variation of 2 degrees Fahrenheit of the surrounding air. Alternatively, the apparatus may be operated by maintaining the water in the boiler at any desired temperature, and further provision may be made for varying this temperature automatically to suit outside variations. The hot water is maintained at any predetermined temperature by an aquastat fixed in the storage cylinder. The firm claim to have perfected controls for maintaining from one boiler both radiators for heating and hot water for domestic use at suitable temperatures. The oil storage tank may be sunk in the ground, fixed in the boiler house or in an adjacent space. It is filled from the oil supplier's tanker through a pipe run to a convenient position with complete freedom from dust and dirt.

*

The Cement Marketing Co., Ltd., have received an order for approximately 20,000 tons of cement for the Underground Railway extension from Finsbury Park to Cockfosters. British collieries will benefit by this order, since nearly 10,000 tons of coal will be required in the manufacture of the cement.

THE BUILDINGS ILLUSTRATED

Following is a list of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

The Cambridge Theatre, Seven Dials, W.C. (pages 539-543). General contractors, Gee, Walker and Slater, Ltd. Sub-contractors: Redpath, Brown & Co., Ltd., constructional steelwork; Caxton Floors, Ltd., floors and staircases; Luxfer, Ltd., windows and lanterns; Carrier Engineering Co., Ltd., heating and ventilating; Berkeley Electrical Co., Ltd., electrical installation; Waygood-Otis, Ltd., lifts; Pyrene, Ltd., sprinkler installation; Sturtevant Engineering Co., Ltd., vacuum cleaning plant; Gimson & Co., counterweights and stage sets; Hydraulic Engineering Co., Ltd., jigger for fire curtain; Ames and Finnis, roof tiling; Frank Burkitt, fire curtain; John Brunskill, stage floor; A. C. Gibson & Co., roller shutters; Haskins, Ltd., roller shutters to cloakrooms; Venreco, Ltd., stage lighting equipment; Newalls Insulation Co., insulation to boiler-room; J. W. Gray & Son, Ltd., lightning conductors; Synchronome & Co., Ltd., electric clocks; John Bolding, Ltd., sanitary fittings; Reliance Telephone Co., intercommunication telephones; Fred. Braby & Co., Ltd., roof ventilators; Art Pavements and Decorations, Ltd., terrazzo paving and biancola; Potter Rax Gate Co., Ltd., collapsible gates; Comyn Ching & Co., Ltd., canopy and grilles; Chubb and Sons, Ltd., safe; C. and A. Brown, Ltd., models; C. W. Courtenay, Ltd., stonework; Ragusa Asphalte Co., Ltd., asphalt; T. W. Palmer & Co., Ltd., handrails and balustrades; S. W. Farmer and Sons, Ltd., suspended ceilings steelwork; Lindsay, Savile & Co., paintings; T. and W. Farmiloe, Ltd., plumbing supplies; E. Hatley and Son, ventilators; Hollis Bros., Ltd., oak floors; J. M. Newton and Sons, Ltd., glazing; Girlings Ferro Concrete Co., Ltd., circle steppings; Willment Bros., Ltd., excavation; G. A. Geyton, sign writing; Electrolumination, Ltd., Neon illuminated signs; and J. Akers, Ltd., signs.

General contractors for the decoration of the theatre, Waring and Gillow, Ltd. Sub-contractors: G. Jackson and Sons, Ltd., plaster work; Fenning & Co., Ltd., marble work; Lap (C. I. Process), Ltd., bas-reliefs; Conrad Parlanti, Ltd., bronze work, engraved doors, and metalwork; Beardmore & Co., Ltd., door furniture, metal lighting fixtures, and metalwork; Robinson, King & Co., Ltd., and T. and W. Ide, mirrors and glass; Woodward, Grosvenor & Co., carpets; Crowly & Co., hand-made carpets; Dualite, Ltd., ornamental glass in lighting fittings; and Standard Insulator Co., Ltd., rubber flooring.

Headquarters, Auxiliary Air Force, Coplaw Street, Glasgow (page 544). General foreman, James Boyd. Sub-contractors: Thaw and Campbell, foundations, dampcourses, asphalt, bricks and stone; Trussed Concrete Steel Co., Ltd., fireproof construction; Robert Brown and Son, Ltd., tiles; James Cuthbertson and Son, slates; Redpath, Brown & Co., Ltd., structural steel; Dobbie, Forbes & Co., grates; James Goodlet, gasfitting and plumbing; H. M. Speirs & Co., electric wiring and bells; Osler and Faraday, Ltd., electric light fixtures; Shanks & Co., Ltd., sanitary fittings; George Boyd & Co., door furniture; Wm. Tonner and Sons, plaster; Thomas Henderson, joinery.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

27605. Johnson, A. L., and Johnson, Clapham and Morris, Ltd. Metal reinforcements for reinforced concrete constructions. September 16.

27848. Crowther, G. Doorways for dwellings, etc. September 18.

27849. Crowther, G. Walls of buildings, etc. September 18.

27850. Crowther, G. Wall coverings. September 18.

27929. Gernaerf, J. Buildings. September 18.

SPECIFICATION PUBLISHED

334837. Cromwell, B. Floors for building construction.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate ..	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_2	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour ;* NAVVY, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0
Screened ballast or gravel, add 10 per cent. per yd.			
Clinker, breeze, etc., prices according to locality.			
Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.			
Transport hire per day :			
Cart and horse £1 3 0 *Trailer*	£0	15	0
3-ton motor lorry 3 15 0 *Steam roller*	4	5	0
Steam lorry, 5-ton 4 0 0 *Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* BRICKLAYER, 1s. 8½d. *per hour ;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see " Excavator " above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½
STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0	4	3
DO. 6 in., per ft.	0	5	0
DO. 9 in., per ft.	0	7	9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see " Excavator " above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour ;* DO. *fixer,* 1s. 9½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone :			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see " Excavator," etc., above.			
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0
Add to the foregoing prices, if in York stone, 35 per cent.			
DO. Mansfield, 12½ per cent.			
Deduct for Bath, 33⅓ per cent.			
DO. for Chilmark, 5 per cent.			
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour ;* TILER, 1s. 8½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200 :			
Portmadoc Ladies	£14	0	0
Countess	23	0	0
Duchess	32	10	0

Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms, per ton	£8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see " Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal :

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	*Med. Green*
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0

Green randoms	6	7	0
Grey-green do.	5	9	0
Green peggies, 12 in. to 8 in. long	4	13	6
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See " Sundries " for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour ;* JOINER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds) :			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. 4 *in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. 3 *in., per yd.*	0	1	8
DO. 4 *in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. 4 *in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ⅝ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ⅝ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 *oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. 4 *ft. sup.* ,,	0	2	3
DO. 6 *ft. sup.* ,,	0	2	6
DO. 20 *ft. sup.* ,,	0	3	1
DO. 45 *ft. sup.* ,,	0	3	3
DO. 65 *ft. sup.* ,,	0	3	5
DO. 100 *ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. ⅜ *in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity. The measured work price is on the same basis per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. from 3d. to	0	0	6
Plaster-board, per yd. sup. from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon												
Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak												
1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak												
1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:

A WEEKLY SERIES



OCKENDENS,
BIRDHAM, CHICHESTER,
SUSSEX

Designed by
JOHN D. CLARKE

AN unusually fresh outlook on the treatment of a one-story domestic building is shown in the photograph above, and in detail in the drawings overleaf, which illustrate a bungalow in the Selsey peninsula, Sussex.

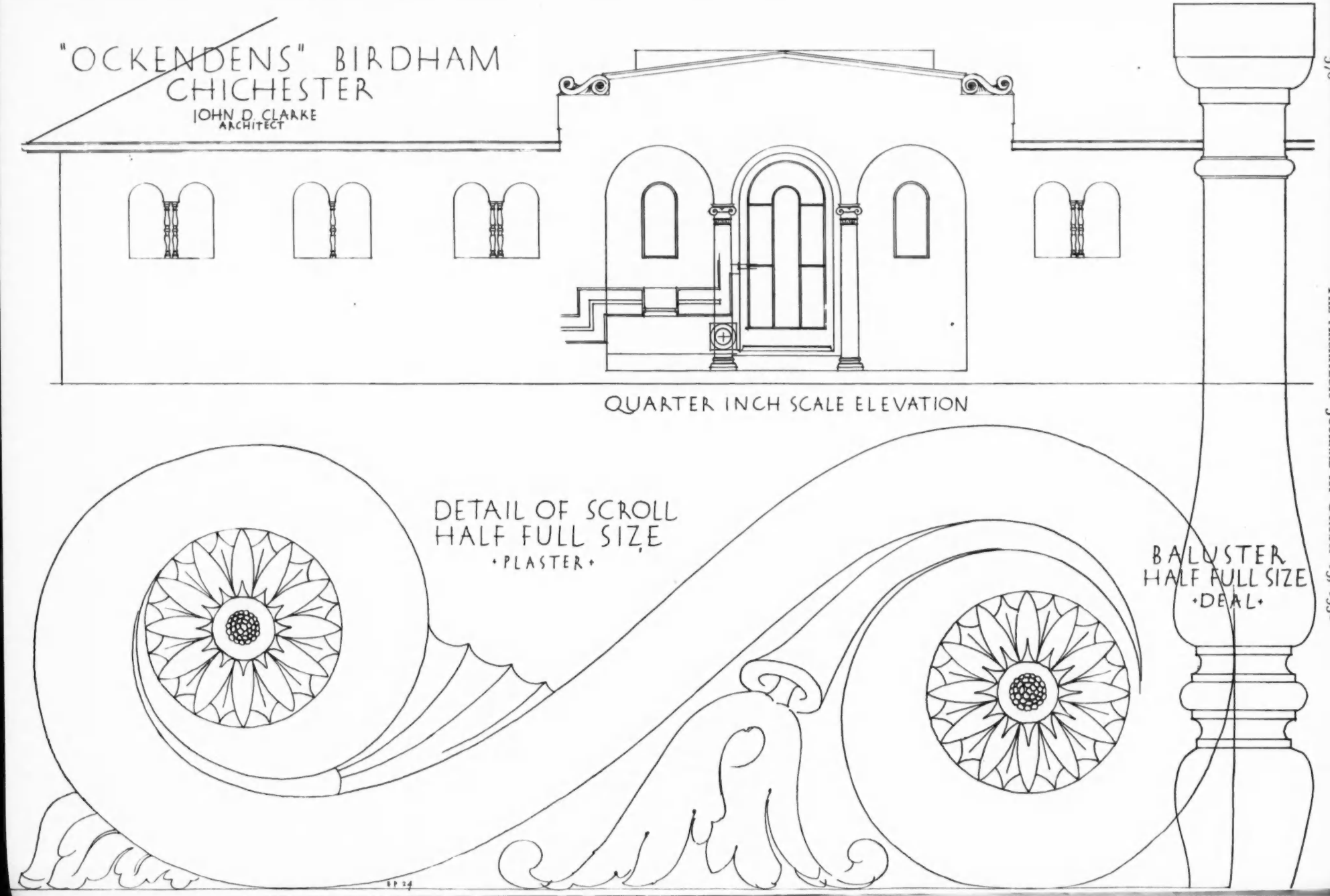
The external walls are of 11 in. cavity brickwork, rendered in cement externally, and developed at the entrance into a three-arched motif, which is given height sufficient to break up above the eaves in the form of a conventionalized pedimented parapet.

Precast plaster scrolls, a detail of one of which, to half full size, will be found on the drawing, terminate this parapet at both ends, and small columns are used to flank the centre arched opening.

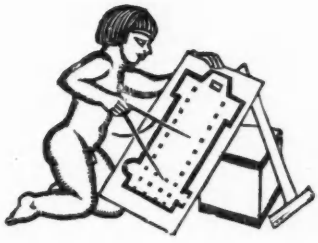
The treatment of the windows should also be noticed. These consist of sashes which are made to open by sliding down inside the cavity of the wall beneath the cill. Many experiments with full-size models were made before the final design was evolved.

Where the windows are coupled, the centre mullion is covered by a pair of delicately designed balusters of which a detail is reproduced overleaf.

The drawings may be read with architects' scales (¼ in.; and 6 ins. = 1 ft.)


"OCKENDENS" BIRDHAM
CHICHESTER
JOHN D CLARKE
ARCHITECT
QUARTER INCH SCALE ELEVATION
DETAIL OF SCROLL
HALF FULL SIZE
·PLASTER·
BALUSTER
HALF FULL SIZE
·DEAL·
EP 14

THE ARCHITECTS' JOURNAL



WEDNESDAY, OCTOBER 15, 1930

THE PLIGHT OF THE CRAFTSMAN

"Craft against craft makes no living."
—OLD PROVERB

IT has recently been again pointed out that the position of the craftsman-specialist on a building job remains very far from satisfactory, because undefined. There is no consistent procedure running through the industry which governs the method of employment of craftsmen. One of the results of this state of affairs is that after a specialist has given his price, and this price has been accepted by the architect, he may find himself called upon by the contractor (to whom, be it remembered, he looks for payment) to allow a discount or to take out insurance policies for certain risks which it would certainly seem to be the contractor's duty to cover, and these amounts may vary according to the arbitrary whim of each particular contractor.

The demand for a discount would seem quite indefensible, in view of the fact that clause 28 of the Conditions of Contract lays down that the sums in payment of work performed by specialists shall be payable by the contractor without discount or deduction. Yet the specialist knows that the contractor has it within his power to make things both difficult and unpleasant for him in the execution of his work on the job, despite the fact that in his estimate the contractor is allowed to add his profit for specialists' work. The inference is that that profit is to be earned by rendering some service. And that service, of course, includes waiting upon the specialist and giving him facilities for the proper carrying out of his work.

It is in connection with the giving of facilities that the extraordinary insurance demands are made. It will sometimes happen with stone carving that work must be carried out on the stone before it is *in situ*, and the obvious place to do this is in the contractor's yard or wharf where there are proper banker facilities. Yet where this has to be done the contractor insists upon indemnification against all risks to the specialist's men. In other words, the specialist is to carry the contractor's third party risks, and such risks insurance companies—quite reasonably—often refuse to undertake.

The contractor, on his part, maintains, in defence of these demands, that the specialist working in his yard does so to suit his own convenience, whereas the specialist, with more reason, maintains that he works in the contractor's yard for the benefit of the job; that it is the obvious and reasonable place to work, and that even had he facilities of his own for handling large blocks of stone, it is obviously uneconomical to shift them about from one place to another; finally, that it is for the granting of facilities of this very kind that the contractor adds his profit to the specialist's estimate. Even in connection with these indemnification forms, which the specialist is called upon to sign, there is no uniformity.

Then, too, there are certain minor matters in regard to which the position of the specialist is far from satisfactory. If in the process of carving a piece of stone a flaw reveals itself, whose is the duty of replacement? Again, is there justification for the frequent practice of compelling the specialist to wait for payment due to him until the contractor shall have received his payment from the building-owner?

It has been suggested that the position of the specialist might be improved were he to be employed by the building-owner and to receive payment direct from him. But in the case of large works this is clearly not possible on account of the labour which would fall upon the building-owner in settling separately with every specialist.

There is today a general desire to raise the standard of craftsmanship, but as a preliminary it is surely necessary to give the craftsman an unequivocal position in the hierarchy of the trade, where he will not be subjected to petty annoyances and embarrassments.



A WATER POOL FOR AQUATIC PLANTS

The quadrangle in front of the new science workshops at Christ's Hospital, Horsham, which were opened yesterday by H.R.H. the Prince of Wales, has been designed with a central water pool to provide facilities for the study and development of aquatic plants. The water pool is planned with canals divided by rills into pools of varied depths, supplied with running water. Mr. Sydney Tatchell, of Tatchell and Wilson, is the architect. Further views appear on pages 575 to 578.



NEWS & TOPICS

The carved stone figure of Edward VI, removed, together with certain Wren brickwork, from the old premises of Christ's Hospital at Newgate when they were pulled down after the school had been removed to Horsham. The resemblance to the present Prince of Wales is too striking to pass unobserved. As part of the consolidation of the school's present Sussex home, the work of preservation of these relics was recently undertaken. Over twenty layers of paint and other coverings were found upon the statue before the original gilding was disclosed. It has now been covered with gold leaf, which brings into relief its fine modelling. The two views were taken before and after treatment.



AT CHRIST'S HOSPITAL

TO visit Horsham for the formal opening of a new block at Christ's Hospital by the Prince of Wales—who, with the guests, afterwards lunched with the boys—was, for me, to rekindle an old memory. Sauntering up the wide avenues, dusted, now, with brown leaves, crossing the open lawn-set quadrangles to Sir Aston Webb's buildings, and arriving at the additions made by Mr. Sydney Tatchell, I fell to contrasting these spacious Sussex amenities with the old buildings in the city. Not that I was ever at school at Newgate, or can recall, at this distance of time, all the impression they made. But I was taken, at a tender age, to dine in that great hall, and retrieve a picture of a dim roof vaulting above bright lights; of a gallery, of a reading-desk from which a lesson was read; of singing, and of long tables with a dais at the end. Up the aisles, after we had dined, advanced a procession of blue-coated scholars, each loaded with the impedimenta of the meal, to make his bow to Authority. It was, in its way, a monkish ritual, a tradition to be treasured.

THE C.P.R.E. CONFERENCE

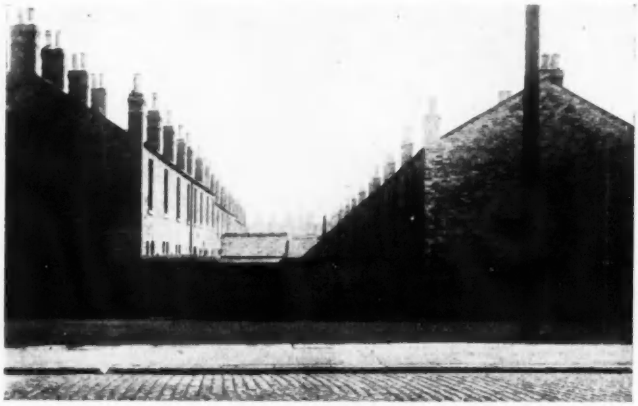
More than one speaker at last week's National Conference of the C.P.R.E., at Welwyn, stressed the point that time was of the essence of the contract into which they have entered. If the remaining beauties of our countryside are not to be destroyed under our eyes, means must be sought of educating, and educating quickly, those, who—poor souls, through no fault of their own—are born with no respect for its amenities. "If the younger generation," said Dr. Vaughan Cornish, "were taught to discern the symbolic beauty of scenery they would find in the human pageant, in the glory of architecture, in the play of light on hill and dale, a fount of inspiration"; and Professor Abercrombie advocated the dissemination among teachers, through the Board of Education, of an impulse towards the protection of fauna and flora in the young who are in their care. Lord Ullswater indeed put his finger on a tender spot when he stated the strange truth that "People kill the thing they love." Legislation can do something to stay their hands, but it is upon a widespread change of heart that ultimate reliance must be placed. Much is already being done, in the way of preserving commons and open spaces (and Sir Lawrence Chubb urged the Government to do more), to help the people; it remains for the people to help themselves to full measure of the benefit.

AT BEAUVAIS

The town of Beauvais, associated with the tragic disaster to R101, is one of the most interesting architectural centres in France. It stands on the southern frontier of Picardy, the northern frontier of the Ile de France, and the western edge of Normandy. In the valley of the Therain, over which the airship flew, have been found many Neolithic remains. The Romans built a town called Cæsar Magnus, complete with temple, baths, amphitheatre, and cemetery, and the modern motor rushes along a main road built on the foundations of the highway used by the Roman legionaries. The Roman town was completely destroyed by the Germanic tribes in A.D. 275, but the lines of the new city erected in A.D. 300 can just be traced.

★

Over a thousand years later, about A.D. 1569, the cathedral, called by Viollet-le-Duc "the Parthenon of French architecture," was designed by an architect, Jean Vast. He succeeded in meeting the wishes of the Bishop and erecting a spire to set at defiance the laws of equilibrium. His wooden spire stood on three turrets, and the iron cross at the top was 153 metres above the ground. Four years later it collapsed and in its fall dragged down two pillars of the choir. Much more damage would have been done if a rope had not been attached to part of the tower which was hanging perilously over the cathedral. A criminal who was awaiting execution offered to climb up and fasten a rope to the tottering tower if he were given his freedom. He succeeded and saved his life. Today the choir is isolated and the nave is still unfinished. If the original plans were completed Beauvais would possess the largest Gothic church in Europe.



Carlisle housing—old style. From the latest D.I.A. Cautionary Guide, which is notable for being published with the specific approval of the town authorities.

RURAL COUNCILS AND OFFICIAL ARCHITECTS

The question of official architects for bodies of insufficient consequence to provide enough work to call for real talent over long periods continues to be debated by councils up and down the country. Generally speaking, they decide to buy an architect as cheaply as possible, saving where they can control expenditure, to make up for the vast moneys which the Government call upon them to disburse for schools, housing, etc. etc.

★

The real crux of the matter, so far as many smaller councils are concerned, lies in the fact that they cannot afford to pay a really good man a good salary; they have perhaps a run of architectural work to be done, but no prospect of a continued need for large building; and to do this work with a second-rate architect means the engagement of a staff to help him. It may be that in the future and as local government expenditure decreases, the small official architect will disappear, the work being done by outside architects.

FORLORN LAMBETH

One may observe at first hand the value of new public improvements upon adjoining property by studying the history of the Lambeth Embankment, for so many years the derelict shore that has seemed to point to the uselessness of all South London improvements schemes. This pathetic stretch of road has never been used as it should be for two reasons. First, it has no depth of site, since the Southern Railway embankment runs parallel with the road only a few yards distant; and second, it has no visible connection with bridge heads, which is to say that the embankment must disappear behind St. Thomas's Hospital at the one end and behind a group of works and warehouses at the other.

★

Once build Lambeth Bridge and a new end of the embankment is made to end satisfactorily and, we hope, grandly. Immediately it becomes a desirable site, since association with a fine bridge is a guarantee that values cannot fall very far. These facts, and the congestion elsewhere, explain how it comes about that a well-known firm has chosen the Lambeth Embankment as the site for a very large building. I venture to think that their wise action will not be without its effect upon other parts of the same river bank, the fate of which lies in the balance at this moment.

THE TWO-BOB LOOK

It is on record that during one week of this summer some 13,000 people paid fifty cents each to be lifted up the Chrysler, Woolworth, and other skyscrapers of New York, to seek thrills and views from the tops. In some cases there was the added pleasure of looking down into Wall Street and of seeing the speculators and money kings reduced to the proportions of gold bugs. The main enjoyment came from the sight of so many peaks of building and the brilliant light and shade effects, similar to the exciting scenery of the Rockies or the Canyons.

★

Whereas Europeans identify themselves with their native soil, Americans seem to find themslves more easily in the newest and highest of their buildings, and although I do not consider American architecture is as good as English, it is a much more popular art. Who goes up the Monument or St. Paul's except a few country cousins and the American tourists? Or is it that we have no building which is a real thriller like the Chrysler, 800 odd feet high, and rocking in the wind? Big business might be done with a scraper near the Tower of London from which the docks as well as the City and Westminster could be spied, and the face of Big Ben read through a telescope.

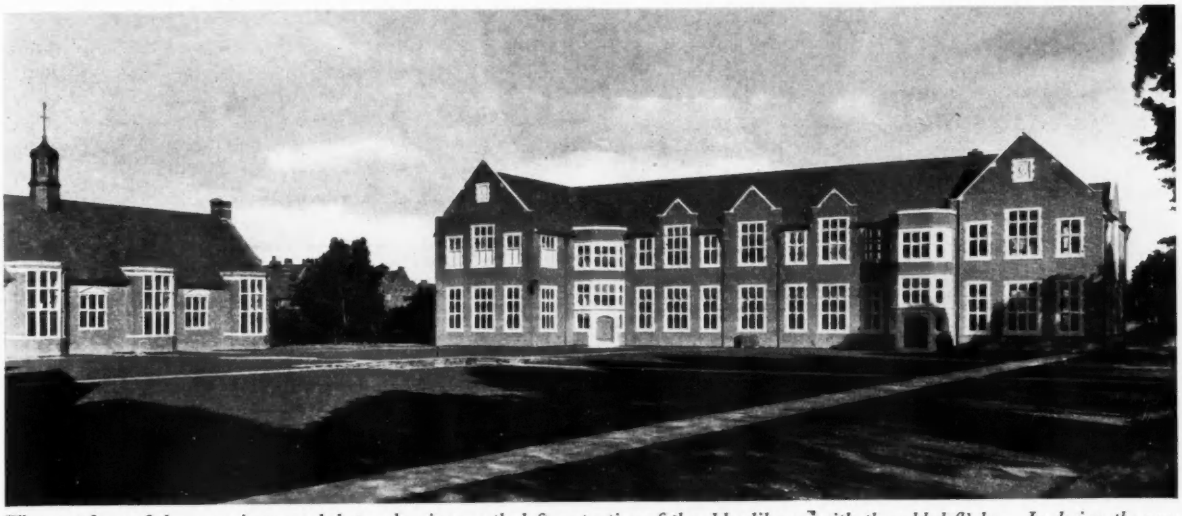
IS SMARTERLY IN TORONTO?

A Canadian architect has hit on the bright idea of building a model dwelling-house in a suburb of Toronto; as the work proceeds he hopes to gather the public round him, interest them in the technical processes and craftsmanship, and get the romance of concrete and timber over to them. Each week he will contribute to the local newspaper an article describing progress and those special qualifications of the house which make it a "model." I can imagine some fine captions: The Mystery of the Brass Thimble; The Secret Nail; Peggy and the Duchess. He will equip the house with all the labour-saving gadgets he can gather together, and presumably will plan it with the same idea. I hope he will explain why sham half-timber and tinelizabethan fireplaces are omitted. Given an expositor with sound knowledge and taste, what a noble work of education he might accomplish! But I have a horrid fear that this is Smarterly, and he is merely out to get a hundred repeats of a "Model" which is very stale indeed.

ASTRAGAL



Carlisle housing—new style. Corporation-built houses on the Stanwix estate. Light, air and flowers. The D.I.A. Guide prints a message from the mayor.



The west front of the new science workshops, showing, on the left, a portion of the older library with the added flèche. In design the new building responds as far as practicable to the east and facing classroom block designed by the late Sir Aston Webb and Mr. Ingress Bell.

SCIENCE WORKSHOPS, CHRIST'S HOSPITAL

DESIGNED BY SYDNEY TATCHELL (TATCHELL AND WILSON)

YESTERDAY, October 14, H.R.H. the Prince of Wales, K.G., the President and Chairman of the Council of Almoners of Christ's Hospital, opened a new block of science workshops and a new quadrangle at Christ's Hospital, Horsham. The buildings have been erected and equipped by the Council of Almoners with the assistance of generous gifts from the Corporation of the City of London, the City Livery Companies and private benefactors, together with a grant from the William Dunn Trustees.

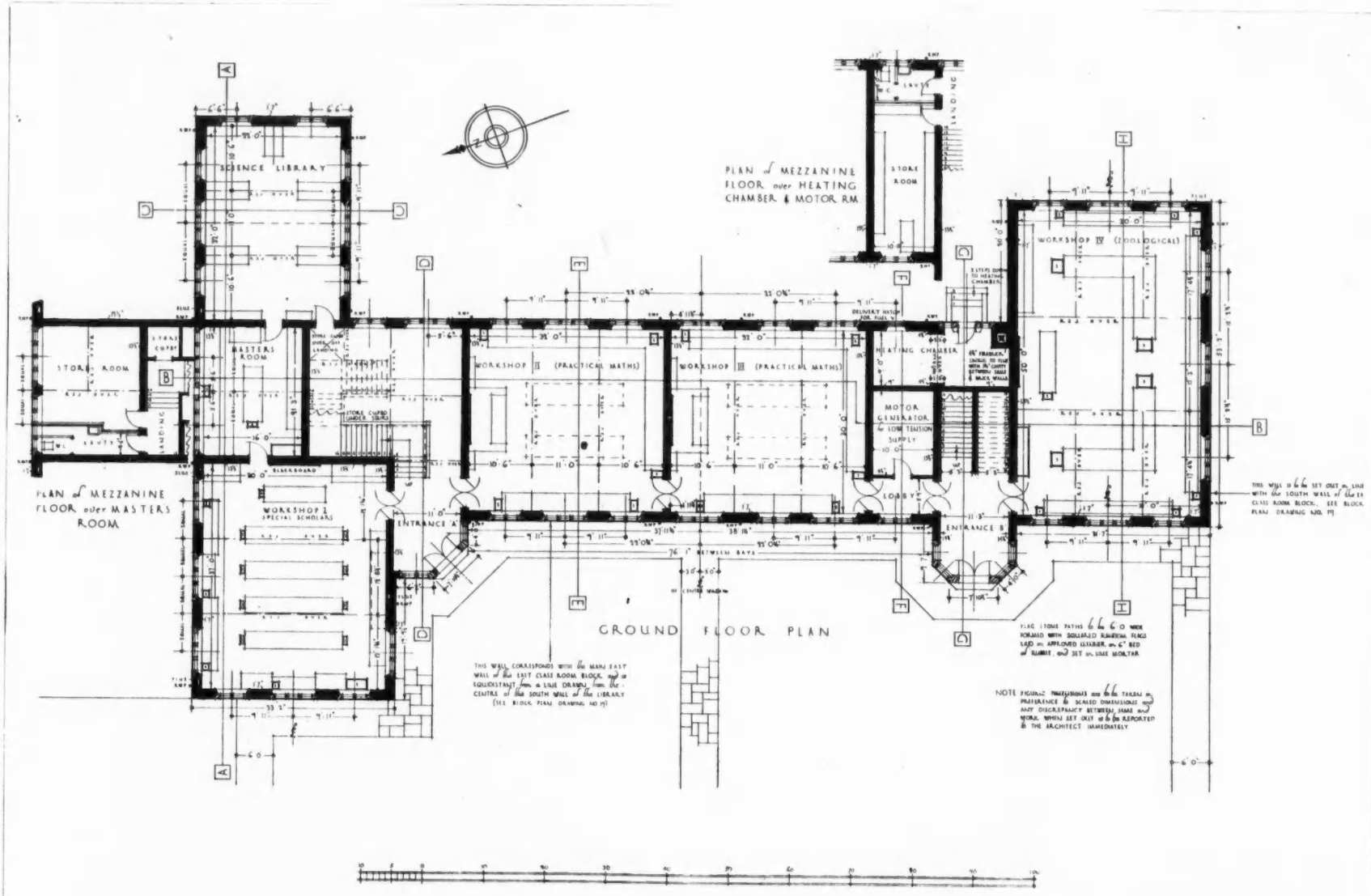
The object the Council of Almoners has in view is the provision of facilities for education in scientific agriculture, so that boys who display a talent for natural science may be encouraged to become research students, for whom there is an urgent need, not only in Great Britain, but especially in the Dominions overseas. In thus widening the field of scientific education and providing fresh opportunities for boys to qualify themselves to respond to the call of Empire, Christ's Hospital is again the pioneer amongst the public schools of England.

The new science workshops are erected on a piece of ground, hitherto unused, to the south of the library, and the opportunity has been taken to lay out a new quadrangle of which three sides are formed by the new block on the east, the library on the north, and the east classroom block on the west, leaving the south side open. The new buildings are designed to form a respond as far as possible to the east classroom block, part of the original scheme carried out by the late Sir Aston Webb and Mr. Ingress Bell, when the school was first built.

To emphasize the main axial line of the new quadrangle a flèche has been added to the roof of the library, and by the generosity of the Amicable Society of Blues (an association of old scholars founded over three centuries ago) three stone seats have been provided in the quad; and, as a centre fountain and ornament in the pool, a reproduction in cast lead of Verrochio's "Boy with a dolphin." Lead masks as water spouts at each end of the canals, and a sundial placed at the intersection of the central stone-flagged paths, have also been given by this ancient society.



The north entrance. The buildings are faced with multicoloured bricks, with reconstructed stone dressings and tiled roof. In the foreground is the end of a canal, with lion's head mask.



New Science Workshops, Christ's Hospital, Horsham.]

[*By Sydney Tatchell* (*Tatchell and Wilson*).

Plans of the ground floor and of the mezzanine floors over the heating chamber and motor room, and over the masters' room. On the ground floor are two entrances and staircases, workshops for special scholars and for practical mathematics and zoology, and preparation and store rooms. The largest workshop on the ground floor measures 50 ft. by 30 ft., and is devoted to zoology.





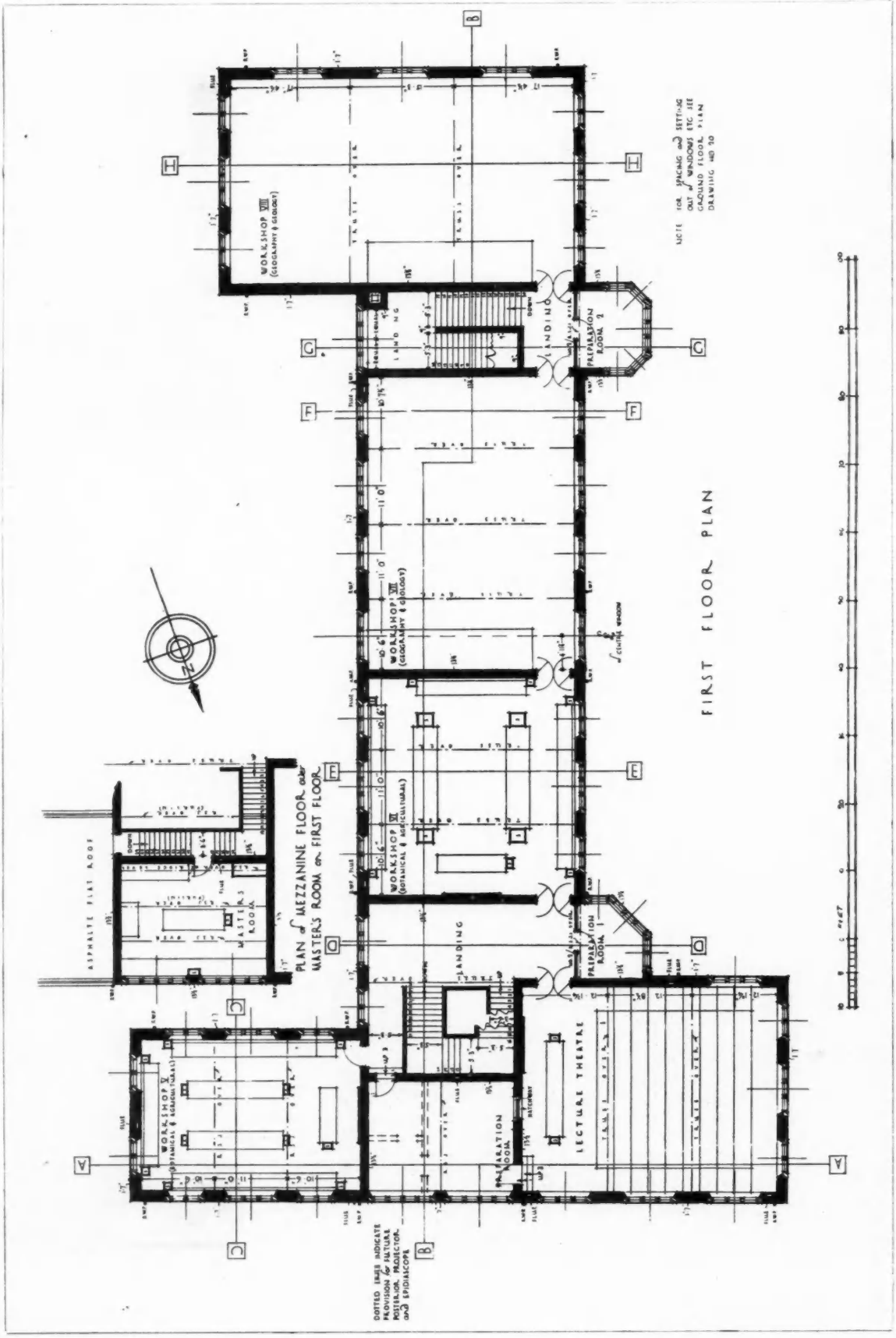
Two of the workshops on the first floor : geography and geology ; and botany and agriculture. In planning the workshops due provision has been made for future scientific developments. Ample light and space are provided for both masters and boys.



New Science Workshops, Christ's Hospital, Horsham.] *[By Sydney Tatchell (Tatchell and Wilson).*

This is the larger of the two workshops devoted to geography and geology. It is about 50 ft. long by 30 ft. wide. The smaller workshop, about 40 ft. by 30 ft., is illustrated above. Both workshops are planned on the first floor.

special scholars and for practical mathematics and zoology, and preparation and store rooms. The largest workshop on the ground floor measures 50 ft. by 30 ft., and is devoted to zoology.



New Sciences Workshops, Christ's Hospital, Horsham. [By Sydney Tatchell (Tatchell and Wilson).

On the first floor are a lecture theatre, accommodating 120 students, workshops for botany, agriculture, geography and geology, and masters' and preparation rooms. An extensive flat roof is provided over a portion of the building for experimental work under glass.



The garden front, facing the sea.

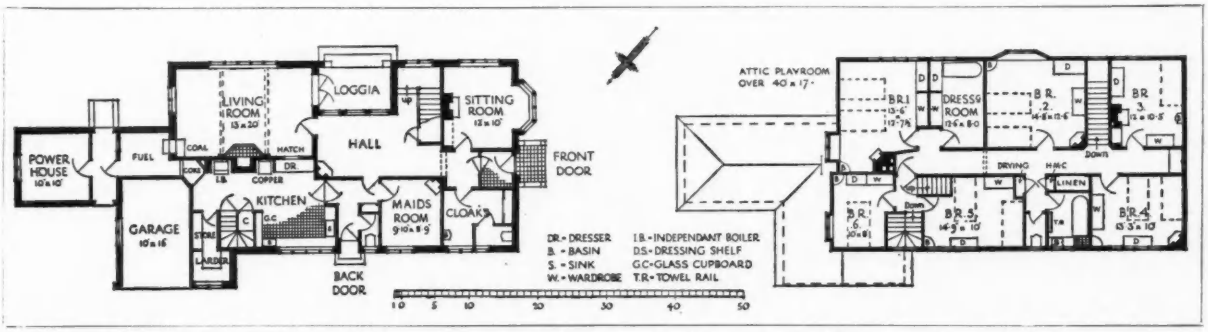
HOLIDAY HOUSE AT LITTLESTONE

DESIGNED BY A. L. N. RUSSELL
(KNAPP-FISHER, POWELL & RUSSELL)

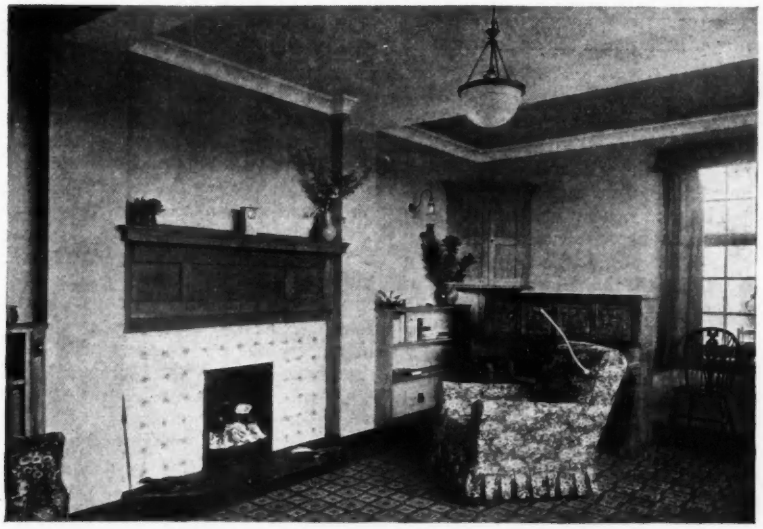
"DYKE END," Littlestone-on-Sea, Kent, has been designed for plain living, with a minimum of furnishing and decorations. In addition to the accommodation shown on the plans, there is a large attic room, affording magnificent views over the Romney Marsh. The interior woodwork is treated in three tones of bronze-green, grey and deep blue. The latter colour has a special charm when seen in conjunction with the white tiles on enamelled walls in the bathroom.



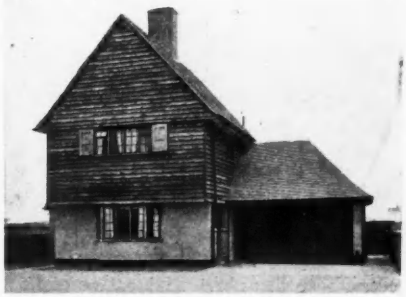
A view from the south. The main entrance faces south-west. The walls are of roughcast, coloured with a slightly pinkish tone to avoid harsh contrast with the tiles; metal casement windows are fitted. The plinth is tarred.



Ground- and first-floor plans. It was desired to get as many bedrooms as possible on the first floor, with the most direct arrangement of passage and service. Fitted wardrobes, and dressing shelves with drawers below, make movable furniture in bedrooms entirely unnecessary. A separate stair and a baize door in the upper passage keep the part of the house used by servants entirely separate.



The fireplace in the living-room. A coal box has been planned in the corner of the room, which can be filled direct from the fuel store at the back.



The side elevation of the chauffeur's cottage, which is connected to the garage.

over a portion of the building for experimental work under glass.

LONDON'S GARAGE PROBLEM

A Ring of Car Parks Underground

DEVISED BY THOMAS SPENCER

OWNERS of cars who have been accustomed to use them for driving into and out of London are finding by tedious experience that more and more time is wasted in making the innermost three or four miles. Already, traffic congestion is such that this portion of the run often takes as long as the remainder, where the total journey involved is of about twelve to fifteen miles. This condition is bound to be seriously aggravated as time goes on.

Moreover, when the car is in London, what is to be done with it? It may only be parked in certain public places, and then usually only for two hours at a time; while to leave it in a garage—of which there are not nearly enough to go round—is expensive and wastes still more time. It is small wonder that Londoners are beginning to ask themselves whether it is worth while bringing the car to town at all.

Many think that they should be definitely prohibited from doing so, at least within the central area most subject to congestion and delay. To mitigate the hardship of such a prohibition and to solve the two difficulties outlined in the first two paragraphs is the aim of a scheme to which considerable thought has been devoted by Mr. Thomas Spencer, the London architect, whose drawings, illustrative of his proposals, are here reproduced.

He visualizes a ring of large car parks, to the number of a dozen or more, situated on the perimeter of the congested area, where motorists would leave their vehicles, completing their journeys to the City by the public means of transport, already abundant, and susceptible of considerable acceleration were the roads made freer for them by the withdrawal of all private vehicles.

The garages would accommodate about 2,000 cars, and would be constructed underground. This is not a new suggestion: the idea of so using Leicester Square has recently been mooted. The use of any square, however, is open to the objection that the trees would almost certainly be sacrified. As for sites already occupied by buildings, the difficulties presented by their foundations would be prohibitive. There are, however, many open spaces which present neither of these drawbacks, and could be developed on similar lines to the Piccadilly Circus station of the Underground railway system.

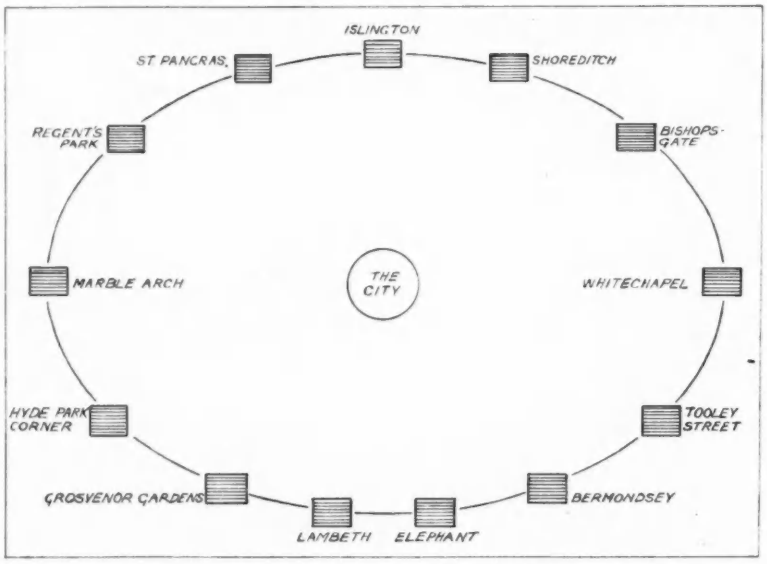
A typical site of the kind, at Marble Arch, is the subject of the detailed plans reproduced on the facing and following pages. It will be observed that a large area is here available, clear of trees and buildings, and that two floors are indicated, the roof of the upper being only just beneath the surface of the ground. Access by means of ramps, which have obvious advantages over the system of lifts that become an unwelcome necessity where considerable depths (or considerable heights, in the case of above-ground garages) have to be negotiated, would be easily and conveniently arranged. One would drive down, when entering, by one ramp, and drive away up the other, both being actually just within the precincts of Hyde Park, and having large open spaces about them.

The question of ventilation, in view of the poisonous elements in the exhaust gases from motor-car engines, always of high importance, assumes particular urgency underground, but presents no difficulty that could not be solved by modern means of mechanical extraction. The building would be entirely surrounded, both as to walls and as to floors, by a complete system of ventilating ducts, with extraction pipes and vents brought to the surface at a number of points, not only around the area itself, but arranged in a line crossing its centre. The arrangement is clearly shown in the drawing facing this page. To provide against accidental failure the extraction motive-power would be duplicated.

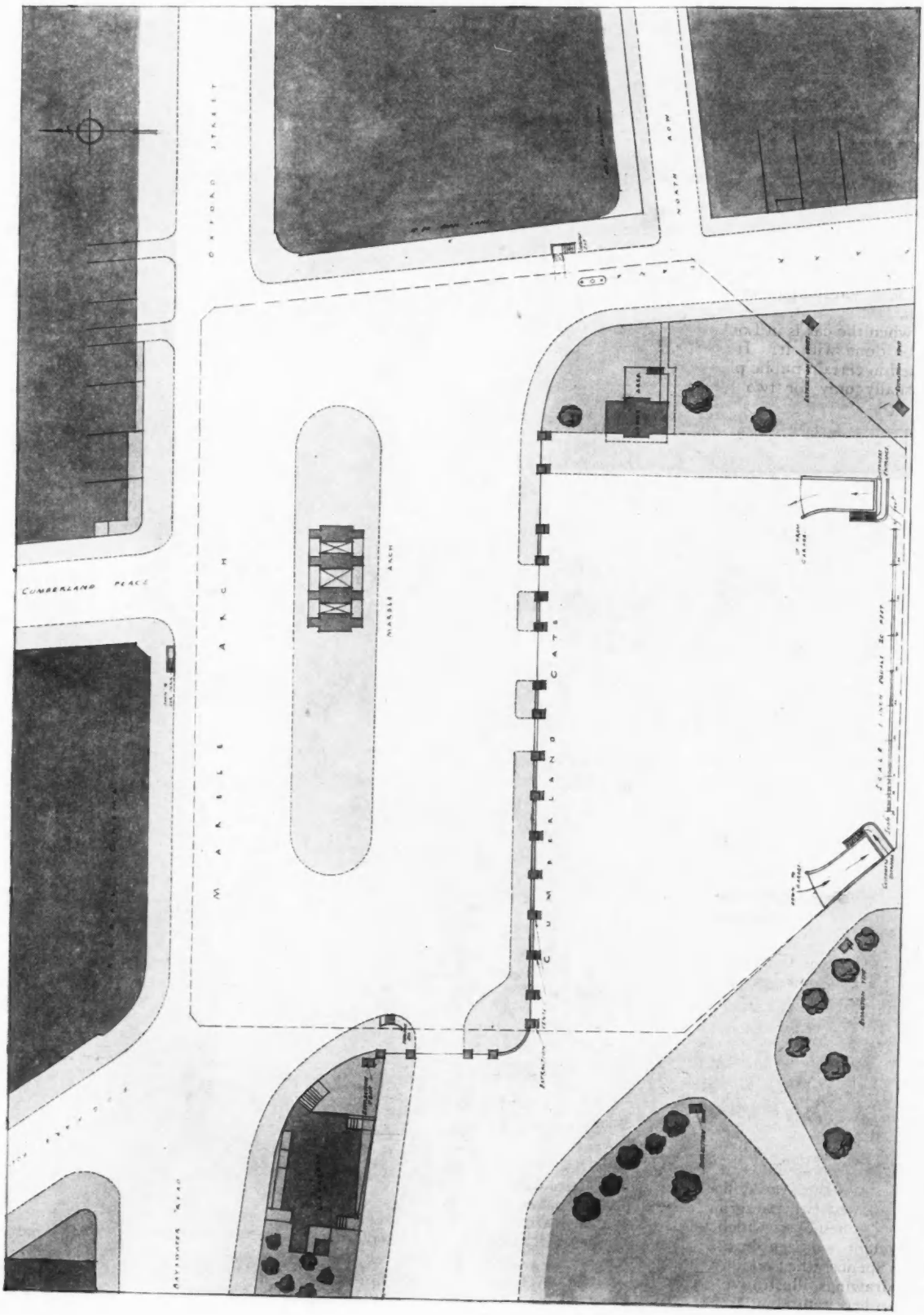
Nor is the essential of ventilation the only benefit to be secured from such ducts. They offer ideal conduits for electric cables, water and gas pipes. By running them therein the necessity for frequently digging up the surface of the roadways above in order to effect repairs, or even to lay on fresh branch supplies, would be eliminated once and for all. Thus another contributory cause of traffic congestion would be removed.

On whom should fall the considerable cost of building such a chain of excavated parks? They are in the nature of public services. If sited as proposed, below extensive road spaces or other open ground, the question of site value should not arise, and the cost of construction should, it is suggested, be borne municipally, with possible assistance from the Ministry of Transport. If the existing garages, with buildings on expensive ground and run for private profit, can afford to park cars at fees averaging, say, 2s. 6d., there seems no reason why larger undertakings, of the kind in view, could not be made self-supporting for a very small charge per car.

The suggestion merits the serious consideration of the London County Council, and other bodies who will shortly be driven, by the march of events, to take drastic steps to deal with the traffic problem. H. F.

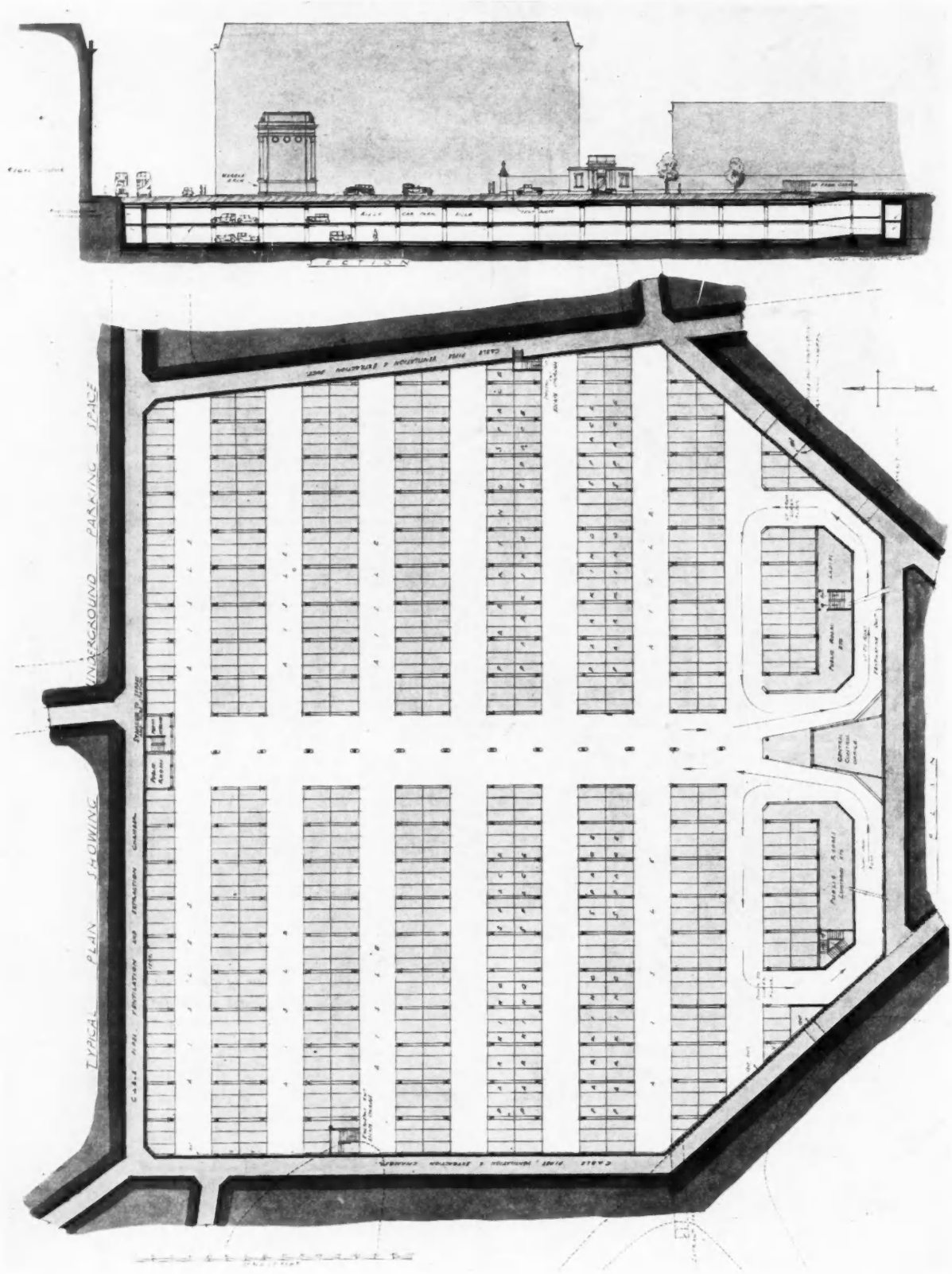


A diagrammatic representation of the scheme for a ring of underground car parks around central London outlined in this article.



Key-plan of the large open space at Marble Arch, to illustrate a typical underground car park, as visualized in the scheme. The area proposed to be utilized is shown by the broken lines; ramps down to and up from the garage floors are indicated to be provided just within the gates of Hyde Park.

[*By Thomas Spencer.*



[By Thomas Spencer.

The Marble Arch suggestion in greater detail. The architect's drawings of section and plan of a two-floor underground car park that would accommodate some 2,000 vehicles. It will be noticed that the question of mechanical ventilation, which is a material part of any scheme of the kind, has received special attention ; also that subways for cables and pipes are included.



ENGLISH PRECEDENT No. 137

THE DINING-ROOM, RAYNHAM HALL, NORFOLK

Raynham Hall, Norfolk, is one of those houses where William Kent is known to have carried out a number of improvements which it is not by any means easy to identify today. Externally, there is much uncertainty as to the features for which Kent may be held responsible. Within the house the uncertainty is less. Certainly the screen which divides off a portion of the dining-room is authenticated in every line.

An arched screen of this sort provides an unusual substitute for the columnar type, but it is not always an appropriate one. Here it seems to have been designed as a setting for the spectacular entrance of the noble host—"centre back," as stage folk say, and booted and spurred for choice.

LETTERS FROM READERS

Official Architecture

SIR,—Just when Mr. Owen and I have filled our fountain pens, and borrowed an anthology of English verse, so that we can indulge in a friendly quarrel, and hand it to each other in poetry, we are assailed by the jolly old "Business Man," who has, with characteristic effrontery, side-tracked the real issue of whether we were talking about architecture or architects, cathedrals or stations, unconscious insults, and intelligence of architects. I submit that you, sir, should not have allowed "Business Man" to crash the gate until Mr. Owen and I had finished with each other.

Mr. Owen's contribution to the Olympia debate resolves itself into three divisions—1 : preamble covering yet another definition of architecture; 2 : vitriolic attack on the work of an eminent architect; 3 : quotation of Rudyard Kipling. As division 2 took up the major part of his remarks, I am still of the opinion that he *was* discussing architects rather than architecture.

Regarding division 3 : let us imagine for a moment the scene in the architects' department of a large brewery :

Chief Staff Architect : "Are the Walworth Road Tavern drawings finished ready for the builder?"

Chief Staff Architect's Staff (in chorus) : "Yes, sir."

C.S.A. : "The Master has praised your efforts?"

C.S.A.S. : "He has."

C.S.A. : "You have all returned your salaries to your employers?"

C.S.A.S. : "Yes, sir."

C.S.A. : "You have had the all-sufficing joy of working for nothing, and have each drawn the thing as you saw it, I hope?"

C.S.A.S. (fervently) : "We have."

C.S.A. : "Then you are indeed happy, and doubly so, in that you have kept this work from the greedy, sneaking, avaricious, mean, sordid-minded outside practitioner."

A beautiful and ennobling thought, truly !

As for "Business Man," I consider him to be an uncouth fellow. Just why he should unerringly put his clumsy finger on the very bones of the question, I am unable to judge. Here is big business unmasked, the bag opened and the cat freed. Here, Mr. Owen, is the architect before architecture ! One feels that the prettiest definition of architecture in the world would pass over "Business Man's" head without him needing to duck to avoid it.

But there is one thing the business laddie doesn't know : I would gently draw his attention to the fact that he can get architecture and the services of staff architects gratis. He need not spend a paltry £500 a year on a tame one. All the big general stores will supply him with anything he wants in the way of plans and specifications free of all charge and obligation, so long as he guarantees that he will buy the door knobs for his new building from them.

It is indeed a difficult world for the lone professional man.

J. R. LEATHART

The Calton Jail Site

SIR,—Since Mr. Ramsay MacDonald, speaking in his less familiar capacity of what, in his already sufficiently remote day, used to be called an æsthetic, complained that an unauthorized sketch of a model of buildings which the Government proposed to erect on this site "had been accurately described [by Sir Lionel Earle] as 'a complete travesty of the original design,'" a hitherto singularly quixotic controversy may be said to have entered a new, and somewhat more actual, phase.

While awaiting the verdict of the Royal (Scottish) Fine Arts Commission on the second amendment to the original (English) design, a Scottish National Committee has taken up arms in defence of Edinburgh's threatened amenities. Unfortunately, this public-spirited body is composed of sentimental romantics and archæologically-minded reactionaries, whose comprehension of the modernist movement in architecture goes no farther than a gasp of senile horror. Paradoxically enough, the canons of taste of these gentlemen are all but identical with those of the nominal villain of the piece, that stout old Ruskinian, Mr. Lansbury, who recently described Mr. Emberton's virile extension of Olympia as "a perfect prison." Like the Corporation of Edinburgh, the National Committee can be relied upon to stand firm for the dead hand of the past, which it has admittedly every title to represent; and refuse to lend ear to the impatient voice of the present, which it dreads and loathes. Not a few modern-minded Scots have been driven to the humiliating conclusion that there is, on the whole, less to fear from the Office of Works, whose defeatism towards the spirit of the age has lately been tempered by certain uneasy stirrings of a long-forgotten structural sincerity.

A comparison of the official drawing of this uninteresting model and the offending sketch of it published by *The Scotsman*, which is now possible, shows that the difference between them is altogether too trivial to justify the sweeping expression "a complete travesty" applied to the latter. So far the honours rest with *The Scotsman*, which virtuously parades its injured innocence and at the same time accuses "the stereotyped lines" of the Office of Works design of "showing no imagination, no freshness, no boldness or originality of conception."

That is all very well as part of a topical journalistic polemic spiced with political bias ; but what exactly is the editorial "conception" of the positive side to this string of architectural negatives ? Presumably, a demand for something either decidedly less, or decidedly more, modern than the official elevations. The charge of a lack of "boldness"—an only too common euphemism for Edwardian "fruitiness"—seems to betray furtive hankerings after the turreted pomps of Scots Baronial. This style is perennially dear to the commercially romantic hearts of the Edinburgh shopkeeper baillies who have been progressively ruining Princes Street. Let them take to heart the awful warnings of Balmoral and Skibo Castles, or the future Scottish Embassy erected by a well-known firm of whisky distillers in the (London) Haymarket — through the plate-glass windows of which Raeburn's superb Macnab may be seen dourly dismissing Landseer's Monarch of all the Glenlivets as a stuffed stag unworthy the stalking.

The words "we cannot imagine any alteration in the design making it acceptable for the Calton Crag" are highly significant. The question may be asked : Has *The Scotsman* any definite views as to what sort of style *is* appropriate to this craggy site ? If so, why does it not expound them to its readers ? If not, why does it continue to harp on the subject ? Unconstructive, negative criticism—and this is all Scotland's leading daily paper has so far had to offer—only lends colour to the suspicion that it is chary of avowing any particular preference until it sees which way the cat is likely to jump.

Mr. MacDonald has hinted that he might agree to restrict the use of the Calton Hill to the new Sheriff court-house. This would leave the problem of finding a site for these Government offices—and a site has got to be found for them somewhere sooner or later—exactly where it was before the present agitation started. *The Scotsman* is of opinion that "there are other sites in Edinburgh where buildings like those figured in the official drawing would not be objectionable, and might even be considered a civic improvement." Curious as is the phraseology of this statement—which sounds as though the

writer were ready to admit that Neo-Egyptian, Neo-Grec, Neo-This or Neo-That do quite nicely for back streets, provided it is recognized that Neo-Baronial must always be *de rigueur* for commanding positions—it at least expresses the glimmerings of a belief, not apparently shared in other quarters, that the indispensable preliminary to making Edinburgh a true capital once again is the worthy town planning of some central area in which to group the Scottish Departments of State.

P. MORTON SHAND

Polytechnics and Exhibitions

SIR,—My attention has been drawn to the letter by "Polygnotus" in your issue dated October 1.

I must admit that I agree with some of the statements made in that letter. For instance, we deliberately refrained from exhibiting at the Building Trades Exhibition any of the work of our Architectural School, preferring to concentrate upon the work of the craft section for which the Exhibition is primarily intended; and in this section the high standard of the work exhibited by the technical schools generally must prove to any unbiassed observer the value of systematic training.

As to your correspondent's statements with regard to the training of architects, I can, of course, only speak in reference to the Northern Polytechnic. We have here one of the schools referred to, that has been recognized by the Board of Architectural Education as up to the standard of the Intermediate Examination of the R.I.B.A., and this recognition would not have been granted had the Board not been convinced not only that we were able to give training up to this standard but that we had actually been providing that training for a number of years.

Your correspondent implies that it is only a very few of those who have been trained in the polytechnics who become successful architects, and that many of the students issuing from the polytechnics "drift in and out of offices." I cannot say how far this may be true of other technical schools, but it is certainly not true of the Northern Polytechnic. On the contrary, we have no difficulty in placing our students in good offices, and there is every indication that they have established themselves as useful members of the profession, and many are now in responsible positions.

The architectural students who pass through our Day School of Architecture receive a training which we believe to be exceptionally practical and valuable, due to the facilities which we are able to afford them of becoming closely acquainted with the associated crafts by actual practice in the trade shops. This practical knowledge will necessarily be of great value to them afterwards, when they have to assess the quality of the work which they are supervising.

I may add that it has always been our policy very strongly to discourage unsuitable students from attempting to enter the architectural profession.

R. S. CLAY
(Principal, Northern Polytechnic)

Settling-Up Honeywood: xxi

THE CAT JUMPS ONCE MORE

BY KARSHISH
(H. B. CRESWELL)

Sir Leslie Brash, the owner, has written a preposterous letter to the architect, Spinlove, objecting to his charges; taking him to task for obstructing his claim against Grigblay, the builder, for defective painting, and for passing items for "profits" and "fees" in the builder's Statement of Account; and particularly complaining of a recently-discovered opening from the furnace flue into the hollow wall, and of neglect to discern the cause of the resulting dispersion of fumes, and stop the nuisance.

SPINLOVE TO RUSS AND CO. (SOLICITORS)

Dear Sirs, 4/12/26.

I enclose copy of letter I have received from Sir Leslie Brash, and also a copy of that to which it is a reply. As your client, by objecting to my style, appears to require me to answer him in his own, I am replying to you. It was a great shock to me to get his letter, as no doubt he intended, since it is the result of ten days' reflection; and what his immediate more "forcible rejoinder" would have been I do not know, for such studied misrepresentation and abuse must need deep thought.

You are acquainted with the facts of the Riddoppo dispute, and will be able to point out to your client that I was *right* in advising him not to use the paint, *right* in supporting Mr. Grigblay's objection to using it, and *right* in saying Mr. Grigblay could not be held responsible for the failure—as was also Counsel's opinion and is your own view; that it is a mere quibble to say I took sides with the builder; that if your client, at any point in the dispute, had acted on my advice he would have saved himself wasted trouble and expense; that everything I have done has been in his interests, which if I had acted differently, would not have been the case. The truth is that what your client resents is my being right and he wrong.

You will also be able to explain to your client that the "profits" and "fees" charged in the Statement of Account are according to custom; that every detail of the account has been audited by the Quantity Surveyor, Mr. Tinge, after authorization by me, according to the stipulations of the contract; and may remind him that I offered to explain any points upon which he was not satisfied.

I enclose copy of the official Scale of Charges issued by the Royal Institute of British Architects, so that you will be able to show your client that my charges are in accordance with it, except where they are less. I find, however, that I omitted certain services for which I am entitled to additional fees: I therefore enclose amended account in substitution for that previously sent in error.

With regard to the leakage of coke fumes, you will be able to tell your client that his ardour in abusing me for what is no one's fault but his own outruns his discretion unless he can explain: (1)—how his household has been "continuously tormented by disgusting effluviums ever since the house was occupied," when no one but Lady Brash was able to detect any smell at all, and the furnace that caused it was out of use for more than six months; and (2)—in what way I was guilty, also "continuously," of "elusive dilatory procrastination" for giving assurances that there was nothing wrong with the drains, when there was not, or in failing to recognize a smell which it required the services of a chemist to determine.

The facts are, as your client knows, that early in the year it was suspected something was wrong with the drains. The builder investigated and found unsanitary conditions due to neglect to keep traps clear. The drains were subsequently proved sound, and there were no more complaints of smells till the 10th October. An indeterminate stuffy smell was then noticed, and at my instigation a consulting chemist was called in who, four weeks ago, reported fumes from coke fires. My dilatoriness has since then consisted in determining what and where the defect was and getting the work opened up. In this I have been delayed fifteen days by your client's prohibiting the builder from entering the house, and by the refusal of the builder to make good until your client accepted responsibility for the defect, which is revealed *to be a hole knocked in the flue by a chimney-sweep employed by your client*, who eluded the foreman after being told not to touch

the flues. You will, therefore, be able to point out to your client that he has misstated many facts perfectly well-known to him, and that he alone is responsible for any annoyance he has suffered.

In this letter I have tried to confine myself to the business of settling up; but as Mr. Grigblay cannot answer for himself and my silence might imply acceptance of the aspersions on him, I wish to say that Mr. Grigblay has from first to last done his duty—and more than his duty; that he is a scrupulously honourable and self-respecting man and a conscientious and capable builder; that the whole of the trouble during the past months has been made by your client; and that Mr. Grigblay has far more cause for grievance against the building owner than the building owner has against him.

You will note that your client has had the forethought to write in his own hand so as to escape the consequences of libel—a most wise precaution. It may be, however, that his sense of his obligations is not entirely regulated by fear of legal proceedings, and therefore, although he has made it impossible for me to enforce a withdrawal and apology, I will nevertheless pay him the compliment of demanding both.

Yours faithfully,

We have noticed before that the highly temperamental Spinlove has a bit of the Old Adam in his make-up. Like other temperamental persons he becomes a different being under different circumstances, and it is this that explains the exuberant folly of some of his letters, the stiff-necked superciliousness of others and the passionate resentment he sometimes, as here, displays. He must have had the devil at his elbow when he wrote and re-wrote and polished up and altered the first typescript of the above, for it is clear he could not have produced the thing off-hand. The stored depths of bitterness it reveals are dreadful; and it is the sort of letter that may be said to be scarcely ever written, for those who are capable of writing them know better than to indulge themselves; and those who do not, lack the capacity. Gifts such as Spinlove here displays are wasted in any but a political career—and worse than wasted. The arresting thing about the letter is the deliberate uprooting of the plant Spinlove has been tending for two years with such solicitude, and the discarding of Brash's esteem and friendly offices just when they were ripe for garnering. This seems inexplicable; for if Spinlove were characteristically unable to control his temper he could not have arrived at the position he has reached. The only explanation that seems possible is that there are matters affecting the relationship of Brash and his architect which this correspondence has not revealed.

The wild folly of Spinlove's action does not, however, prevent us from admiring his courage in writing the letter; and there is a manly disregard of consequences which shows him to be of finer metal than we have hitherto had reason to suppose. That the letter is not quite fair to Brash is of no consequence: the only impediment to our perfect joy at the prospect of Brash reading it is that Spinlove is but little over thirty and Brash is advanced in middle age—for I imagine Grigblay's "old gentleman" to be no indication of senility, but provoked by a humorous perception of frontal luxuriance, tight boots and similar abnegations of youth.

We may also sympathize with Spinlove. In what way ought he to have replied to Brash's outrageous letter? It is a very difficult question. He might, of course, have flattered Brash into reason by being submissive, giving a diplomatic answer to the various complaints, appealing for a more tolerant view of the facts and a recognition of what was due to him; or he might have risked a letter of passionate protest, such as in early days Brash once provoked him to, but he could scarcely have done either except at the loss of his own self-respect and his claim on Brash's—but why should he make any surrender whatever?

When a letter is written under a genuine misapprehension and without any intention of offensiveness, a diplomatic answer removes the misapprehension and prostrates the offender with the realization of his transgression; but when, as in Brash's case, there is a deliberate intention to affront, and facts are wilfully distorted to bolster abusive aspersions, the problem is how best to hit back, and hit back with effect, for it is easy for the hitter to do more damage to himself than to his adversary—as Spinlove seems to have done. Spinlove must have been tormented with the difficulties of the position before he struck the happy idea of addressing his reply to Russ; and if he had written coldly, instead of with feeling, made no attempt at retort, and suggested the expedience of an apology without appearing to care whether it were conceded or not, he would probably have hit Brash the harder and disarmed him of deeper grievances. The things that will hurt Brash are Spinlove's disdaining to reply to him; Russ's seeing his letter; and the humiliation of being told that his various grievances are without foundation and that he is wrong and Spinlove right. Spinlove's carefully polished sarcasms were not necessary, and may be expected to do him more harm than they will Brash.

MISS PHYLLIS BRASH TO SPINLOVE

Dear Jazz, 7/12/26.

What have you been doing to Dad? He is utterly furious with you and I am afraid he is going to see Mr. Russ today. Why do you make all this trouble? It was never like this when the house was being built, and afterwards he was so blown out and pleased with everything — but now everything is horrid. He *shouted* today —he hardly ever does that. Do please have a reconcilly, or I don't know what will happen. Why is not the flue put right?

Yours,

P.

PS.—Mum comes home tomorrow, in spite of all cold and comfortless. She took the leap at Brighton—not into the sea but into a psycho-merchant's bosom, and Aunt G. says it's done her good already.

SPINLOVE TO MISS PHYLLIS BRASH

Solemnly, it is not my fault. I would do anything to have a reconcilly, but he wrote me a most terrible letter; abusive and misrepresenting all the facts—not troubling to understand them, and actually insulting. I could not possibly take it lying down and did not know how to answer without making matters worse, so, as he proposed to refer matters to Russ, I replied to Russ. I suppose this has upset him, but Russ will put things right I am sure. The flue can be patched up directly the word is given. I can do no more.

Excuse typed letter as I am in a rush.

RUSS TO SPINLOVE

Dear Sir, 9/12/26.

On receipt of your letter and enclosures we communicated with our client, who has since called to see us and has instructed us to say that his letter to you of November 2nd was written under a misapprehension as to certain facts. He now realizes that his aspersions on yourself were not justified, and he withdraws them and expresses his regret that he made them.

We shall be glad if you will make an appointment with Mr. Russ at this office on an early day for the purpose of explaining one or two matters arising out of the Statement of Account, and your own charges.

We have also to direct you to instruct the builder to make the necessary alterations to the flue at the earliest moment, and to inform us directly you know definitely the date when the work will be completed.

Yours faithfully,

It will be noticed that, by ignoring Spinlove's vituperations, Russ's formal letter conveys a more effective rebuke than any retort or comment on them would be likely to do. Russ has evidently persuaded Brash to a more reasonable state of mind.

SPINLOVE TO MISS PHYLLIS BRASH

Dear P., 10/12/26.

Since you rang up this morning a letter has come from Russ which puts everything right so far as business is concerned—apology and everything. Will you keep a lookout tomorrow morning and let me know how thingys are at your end, as I am writing him

a really nice letter that I hope will put everything right. Excuse typewriter.

Yours,

For "him" I read "your Father."

SPINLOVE TO RUSS AND CO.

Dear Sirs, 10/12/26.

I am much obliged for your letter and gladly accept without reserve Sir Leslie Brash's withdrawal and apology. Of course, I was bound to ask for it.

I will call and see Mr. Russ at 11 on Thursday if that will be convenient to him.

I have arranged by telephone with the builder to put the repairs to flue in hand at once. They will be finished next week, and there is no reason why the furnace should not be lighted on Friday.

Yours faithfully,

SPINLOVE TO BRASH

Dear Sir Leslie Brash, 10/12/26.

I have today received a most satisfactory letter from Mr. Russ which I have, of course, suitably acknowledged; but I am impelled to thank you and to express to you the great pleasure I received from the message he sends from you. I do hope that everything is now all right between us. I was in great difficulties when I received your letter, as it was really altogether "too rather," as Phyllis says, and misrepresented the facts in such an extraordinary way that I could not trust myself to reply direct; and as you had threatened to call me to account with Mr. Russ I thought the best thing would be to take the bull by the horns (I am not referring to you, of course) and see if *that* would do any good—as it has, I am thankful to say.

I have arranged with Grigblay to get on with the work to the flue, and you will be glad to know that he will definitely get to work next week and that you will be able to light the furnace next Friday, certain. I understand you agree that the damage was caused by the sweep Lady Brash employed, and that no question will be raised on that point after the work is restored. As you know, he refused to touch the flue except on the understanding that you accepted responsibility for the damage.

With kind regards and best wishes,

Yours very sincerely,

So this is Spinlove's idea of a "really nice letter"! He would have been entirely right in telling Brash he received his message with very great pleasure and accepted it fully and without reserve; and in adding a light comment on some remote subject to show that he regarded the quarrel as over and out of mind; but he appears—as usual—to have written out of the feelings of the moment without any regard for the effect, which will be to open every wound that Brash's vanity has suffered in his interview with Russ.

MISS PHYLLIS BRASH TO SPINLOVE

Dear Jazz, 11/12/26.

I spotted your screed at breakfast this morning, but I do not think Dad is going to wear it next his heart *immediately*. He put it back in the envelope after he had read it, and said nothing, but he lobstered—he does that sometimes; not anger—sort of bashful, don'tcher? What was it you said to make him? Mum is wonderful, but, odds architects and builders, when are we going to have the heat on? The whole household is suffering terribly from a chilblain on Mum's little finger. She is writing to you. *It's all right.*

Yours,

P.

Mem: *Go and get psychoed.*

SPINLOVE TO GRIGBLAY

Dear Sir, 17/12/26.

I kept an appointment with Mr. Russ, Sir Leslie Brash's agent, yesterday and am glad to tell you that there is no intention of proceeding against you for the Riddoppo failure. The matter has been dropped and all suggestions that you were in any way responsible withdrawn.

I enclose certificate for £1,802 11s. 9d. being final balance due under the contract as shown in the Statement of Account. The account for restoring the flue, including analyst's fee, should be rendered separately.

Yours faithfully,



The doorway at No. 38 Johnson Street, Westminster, of which a measured drawing, by R. A. F. Riding, is reproduced on the facing page, is typical of many in this somewhat neglected district of Westminster that may soon be lost. Its simple charm may be summed up in two words—"good design."

BRASH TO SPINLOVE

Dear Sir, 13/12/26.

I am gratified by your intimation that you have received and fittingly acknowledged a communication from Mr. Russ, and that that communication meets with your approval.

The matter you refer to as in dispute between us is, I apprehend, anent the furnace flue, in which eventuality it appears we are in agreement, and I accordingly observe with satisfaction that you have succeeded in obtaining Mr. Grigblay's consent to undertake the work, as the result of his protracted decision in this matter has been of interest to us for a considerable time.

I suffer, I apprehend, from a certain unavoidable confusion of mind anent the various building operations which Mr. Grigblay objects to perform and those others anent which he refuses to take responsibility; but any compliances on his part which offer expectations that we will shortly see the last of him are most welcome.

Yours faithfully,

Brash is sulky. Spinlove has won!

LADY BRASH TO SPINLOVE

My dear Mr. Spinlove, 13/12/26.

Here I am again you will see, after a most enjoyable stay at Brighton with my sister, but all the time I was there I wished I was at home which rather spoilt my visit in spite of not having a *dreadful* chilblain when I was there.

First about the *heat*. Leslie says it will never be finished but the men are at work now so will you tell them to be a little *quicker*. There, I knew I had forgotten something. I nearly wrote to you from Brighton but it is so much easier when one is closer. Mrs. Cooper tells me they are *all the rage* just now but of course only young people do it in public and I should never *dream* though Phyllis always does. Now what would it all cost? I should like it on the roof so as to be as near the sun as possible, with steps up and down and all closed in so as to be invisible, so will you tell me and then I will ask Leslie.

Phyllis is having some friends on Saturday to celebrate the hot water she says and we hope you will stay the night. Please excuse writing, I have such a *dreadful* chilblain on my finger.

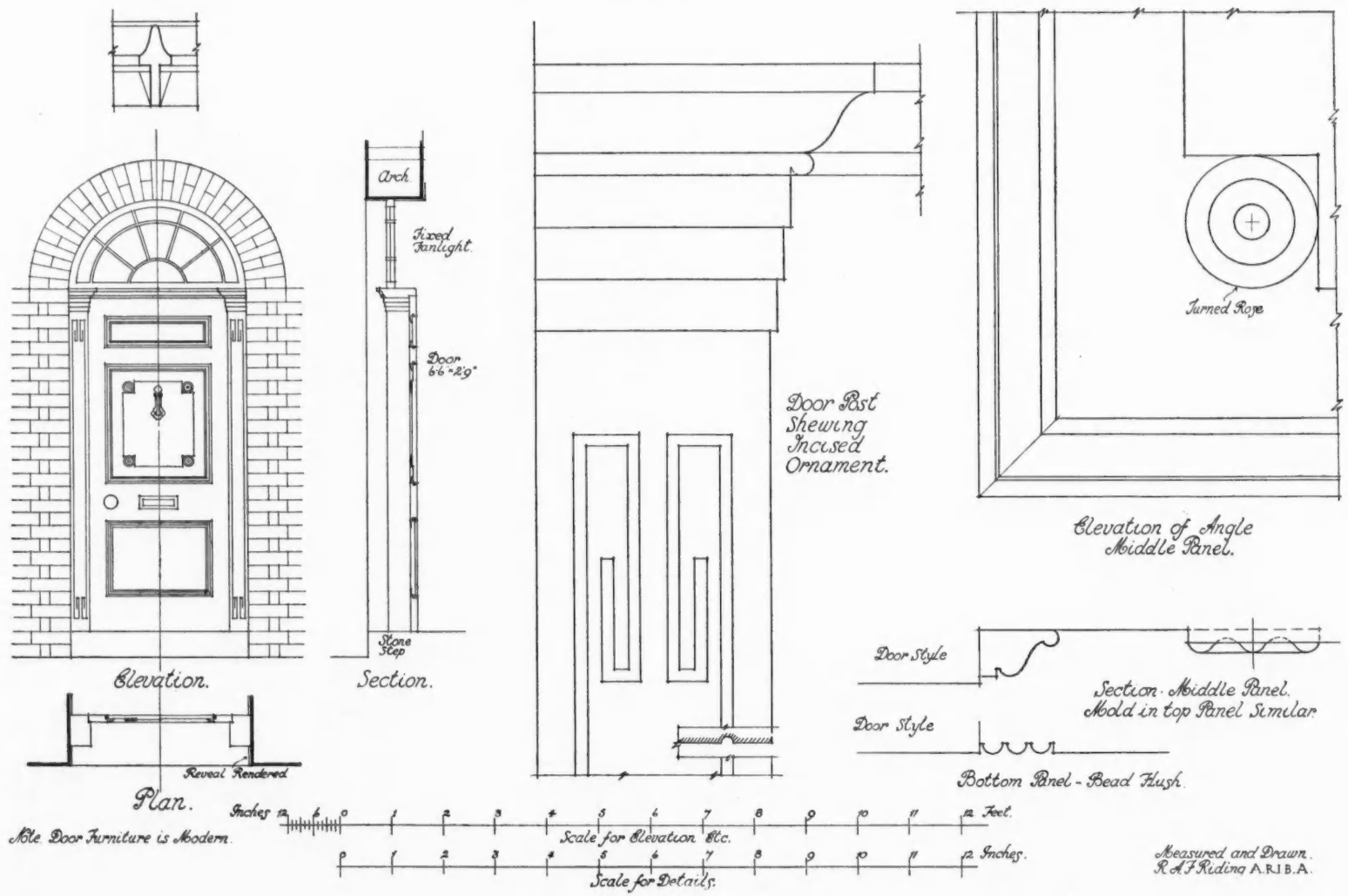
Yours very sincerely,

And Sunday night. P.

Apparently the lady has in view a sun-bath. The benefits of psycho-analysis are not as pronounced as might have been hoped.

[NEXT WEEK: XXII—A LAST SURPRISE]

DOORWAY, NO 38 JOHNSON STREET. WESTMINSTER.



In the above Regency example, of which a photograph appears on the facing page, the opening and the door itself are well proportioned, and the mouldings very good. The inside line of the sturdy doorpost is effectively carried round the arch by the glazing bar of the fanlight, and the face of the post itself is happily relieved by the fluting, the latter being very carefully spaced on the post.

LITERATURE

THIS ENGLAND

IT is for the younger generation that Mr. F. J. Gould has written *This England*, in the hope that it may inspire them with a desire to maintain and develop many beautiful elements in English scenery—buildings, crafts and popular tradition.

Each chapter of the book takes some fresh realm of beauty, scenes of nature, such as mountains, rivers, forests: or alternatively, music, painting, learning, etc., and Mr. Gould strives in the small space of the few pages devoted to each subject to show their myriad aspects and to present to us as many historical and other facts about them as possible.

In an attempt to use every available weapon in order to bring home to his readers how packed with tradition and teeming with interest is almost every square inch of England, the author piles fact upon fact and date upon date, until at the end of a chapter one seems to have been round the world and down the centuries in the compass of half a dozen pages.

The ground covered by the author in so small a book is so great that I seriously wonder if he does not somewhat defeat his own end. Nevertheless, it is an honest attempt to bring to the notice of those about to leave school or college something of the grace and splendour of the simple things of beauty to be found in all ages and times, not only in England, but throughout the world.

In this mechanical age, when speed is the predominant factor, when so often "full of care, we have no time to stand and stare," it is well to turn the minds of the younger generation towards the restfulness of rural scenes, cottages, windmills, and further afield to the wonder of temples, sculpture, primitive handwork, etc., and to remind them of days when there was time for all things.

K. M. H.

This England. By F. G. Gould. London: Watts & Co. Price 5s. net.

A CHINESE COMPENDIUM

THE sixth issue of the *China Architects' and Builders' Compendium, 1930*, has recently been published. It has been edited by Messrs. J. T. W. Brooke, A.R.I.B.A., and R. W. Davis. In the preface it is stated that the feature of the latter part of 1929 and early 1930 has been the continued development in building schemes in China in spite of the phenomenal drop in exchange.

The twelve months since the last issue of the Compendium, the authors point out, have shown further large increases in the prices paid for land throughout the whole of the International and French Settlements, and in the area adjacent to those extra-Settlement roads where the Shanghai Municipal Council still retains control. This continued rise in land values seems to be due to a variety of very different causes, some connected with the natural growth of Shanghai and others with political and financial considerations of a world-wide character.

Among the subjects the authors have incorporated in the Compendium, chapters are devoted to land valuation and registration, professional charges and building regulations.

K.

The China Architects' and Builders' Compendium, 1930. Edited by J. T. W. Brooke and R. W. Davis. Shanghai: North China Daily News and Herald, Ltd.

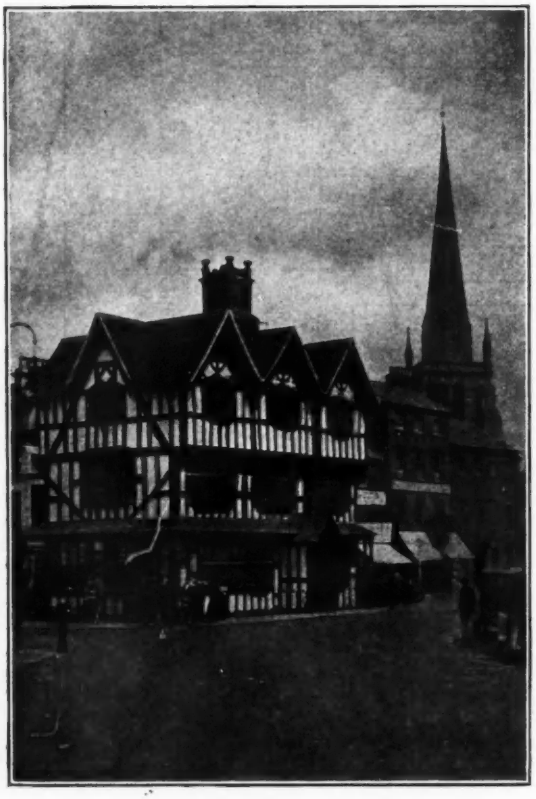
THE ART OF SKETCHING

MR. SALWEY'S latest book, *The Art and Practice of Sketching*, goes to prove, if this were necessary, that the author is conversant with every medium of sketching. Before, we knew him as a connoisseur in the art of sketching with the lead pencil; now he is revealed to us as the versatile exponent of all the media of this most fascinating of arts.

Sketching, as we see it through the author's eyes, is a pathway leading to greater things. It is the medium by which great artists have recorded their contacts with Nature, and which has led them on to the finished work.

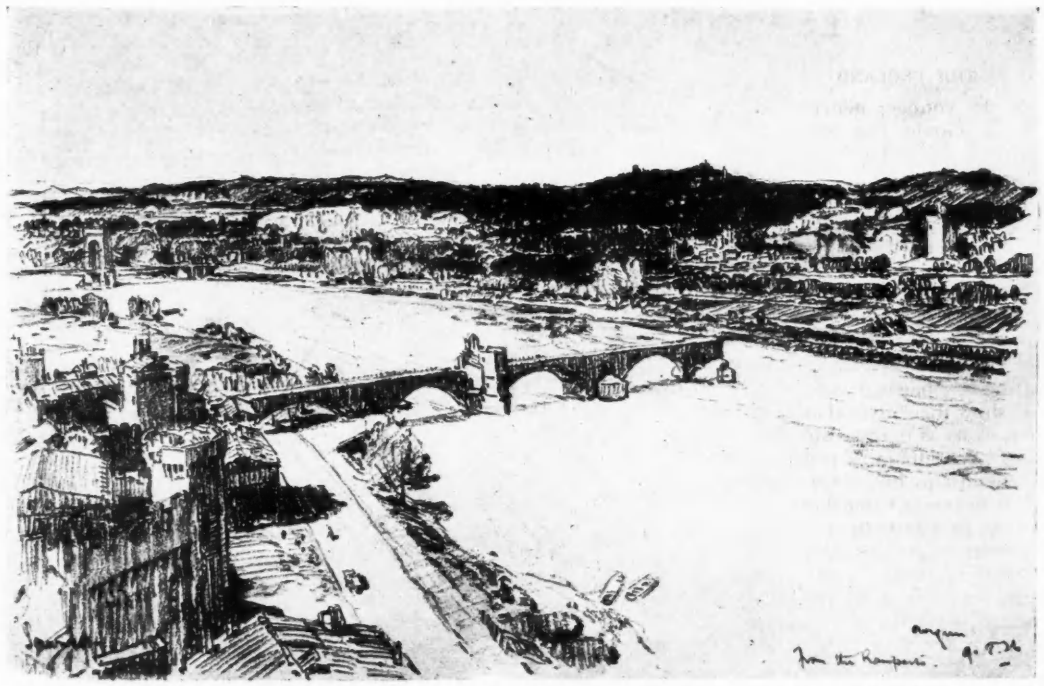
The student reading this book will not find it the usual dull, technical work which makes him throw down his pencil in despair, but rather an interesting manual tracing the history of sketching from early days to recent times, and dealing first with the principles of this important branch of art, followed by the actual practice of sketching, so masterfully dealt with that it urges the sketcher to be "up and doing" and to attack his work with a fresh vigour, more seriously and assiduously than ever.

In his chapter on architecture, Mr. Salwey points out that there is little else from which the student will learn more, little from which he will derive greater satisfaction than the drawing or painting of architecture. It is also seldom that an architectural subject, worthy of a sketch, is not to be found within easy reach. It would also be a rare case in which a group of buildings does not present, at some time of day, or under certain weather conditions, attraction as a subject. There is, he tells us, a certain aspect of the matter which is not so obvious, and that is that a sketch of a building may all too easily be merely prosaic. The charm of a cast shadow from nearby objects which puts half the building in shade and leaves



The Old House, Hereford.

[*From* This England.]



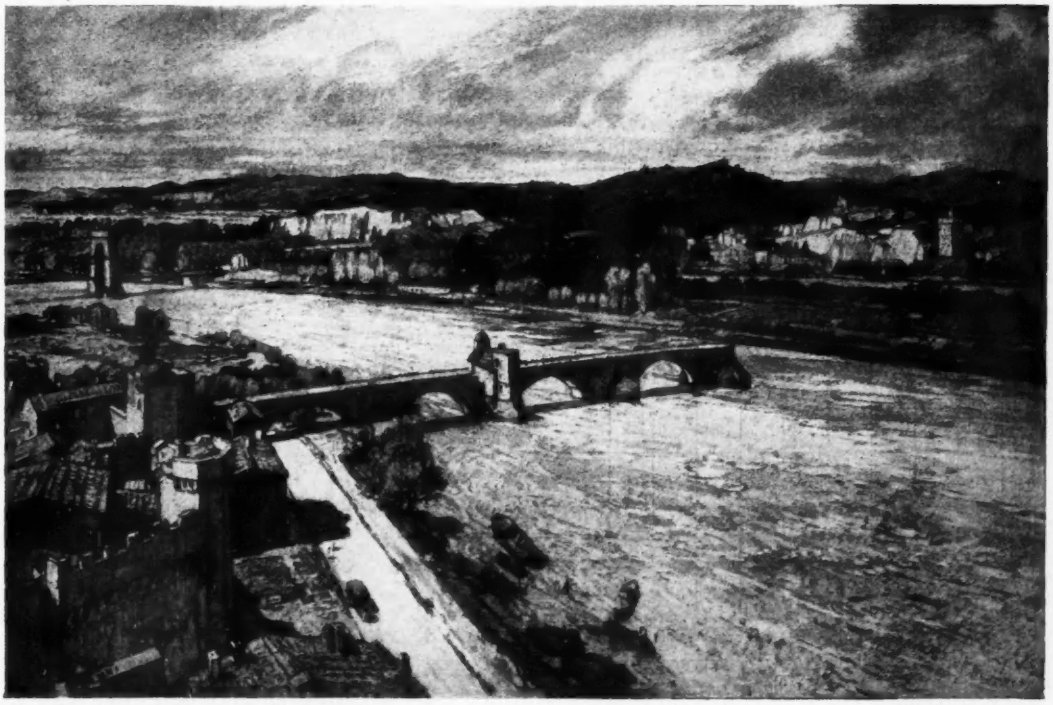
Preliminary sketch in carbon pencil for the pastel drawing reproduced below. By Leonard Squirrell. The view is of Avignon, from the Ramparts.

the rest in strong light, the introduction of a neighbouring tree, an unusual angle of view, these interests may all be left unrealized in the eager desire just to obtain a sketch of the subject.

The illustrations play a particularly important part, as they exactly typify each point in the thesis of the book. They are chosen from the works of great masters from Rembrandt to Orpen, and include a long and varied list of world-famous artists.

Mr. Salwey has added a useful section on materials which should prove invaluable to the amateur. M. G.

The Art and Practice of Sketching. By Jasper Salwey. London: B. T. Batsford, Ltd. Price 12s. 6d. net.



From The Art and Practice of Sketching.] [*By Jasper Salwey.*

Finished pastel drawing, based on the sketch reproduced at the top of this page. By Leonard Squirrell.

THE SPECIFICATION WRITER

Daylight Illumination: Data Available

By JOHN W. T. WALSH, M.A., D.SC.

IT was, until recently, a frequent lament of the illuminating engineer that the architect did not pay sufficient attention to the problems of artificial lighting and that it was only in the final stages of construction, when no material modification of design could be made, that the lighting expert was called in to do his best with a practically completed building.

It might not have been an altogether irrelevant retort of the architect that, while it was true that the artificial lighting of a building was important, the admission of daylight in adequate amount and suitably distributed was even more important and that this was a subject which 99 per cent. of illuminating engineers completely ignored.

It is, however, significant that both complaints have far less justification today than they had some ten or even five years ago. Many architects are now paying a great deal of attention to lighting problems, and frequently consult the illuminating engineer at an early stage in the design of an important building. On the other side, illuminating engineers are gradually coming to a general realization of the importance of studying the problems of natural lighting.

The National Illumination Committee of Great Britain has a sub-committee for studying the problems of natural lighting and, similarly, the Illumination Research Committee of the Department of Scientific and Industrial Research, through one of its sub-committees, has initiated several researches on matters of great interest to architects. These researches are, for the most part, being conducted at the National Physical Laboratory at Teddington and the results obtained are published from time to time either as "Technical Papers" of the Committee, in the pages of the technical press, or in the Annual Report of the National Physical Laboratory. It is intended here to describe some of the work that has already been completed and to summarize briefly the results.

DIURNAL AND SEASONAL VARIATIONS

It is clearly a first necessity in any study of the natural lighting of buildings that there should be adequate data as to the amount of daylight available, on the average, at any given time of day in any particular period of the year. With the object of providing data of this kind, daily measurements of daylight illumination have been made at Teddington during the past five years. These measurements have been made thrice daily, viz., at 9 a.m., 12 noon and 3 p.m. (G.M.T.), and curves showing the averages for each month have been published. In order to take the element of aspect into account, the readings have not been taken on an open surface exposed to the whole of the celestial hemisphere, but the surface receiving the daylight has been placed in the corner of an octant, as shown in figure one. This octant is capable of rotation about a vertical axis and measurements have been made with the octant facing in turn each of the cardinal points (true, not magnetic). Thus the measurements made in each year have provided twelve curves. From the published results, the twelve curves of figures two to five have been drawn to show the mean variation throughout the year of the illumination due to each of the four octants of sky at each of the three times of day mentioned above. These curves show only the light received from the sky, as the card was always shielded from direct sunlight.

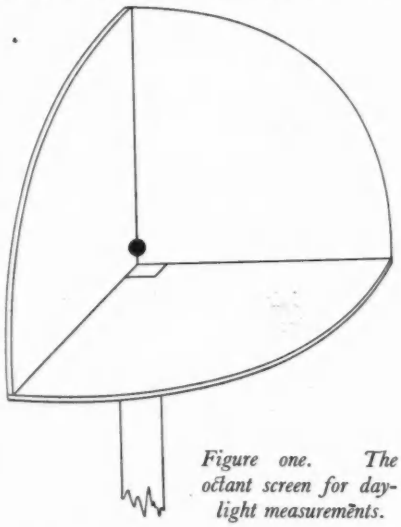
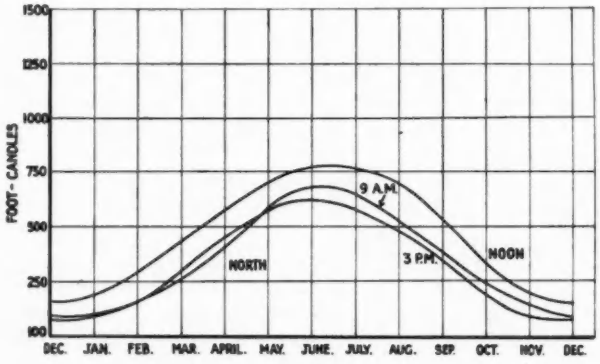


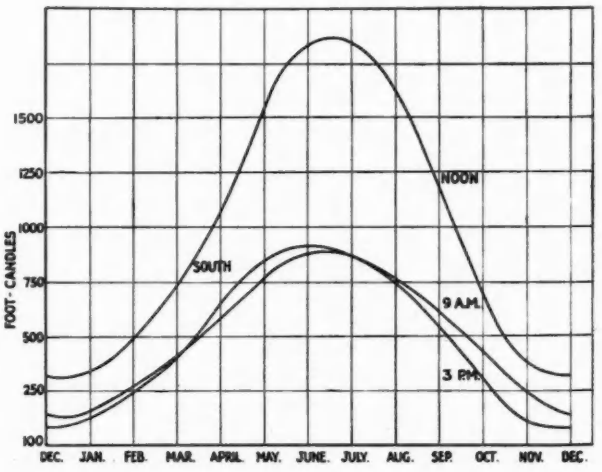
Figure one. The octant screen for daylight measurements.

The illumination of a surface exposed to a quarter-sphere of sky facing, say, N.W., can be obtained at once by adding the ordinates of the curves (i.e. the lengths of the perpendiculars from the curves to the base-lines) for north and for west. For a quarter-sphere facing west it is probably sufficiently accurate to add to the ordinates of the curve for the west octant half the sum of the ordinates of the curves for the north and south octants. Alternatively, the ordinates of the curve for the west octant may be doubled. It will be found that the results obtained by the two methods do not, in general, differ very greatly.

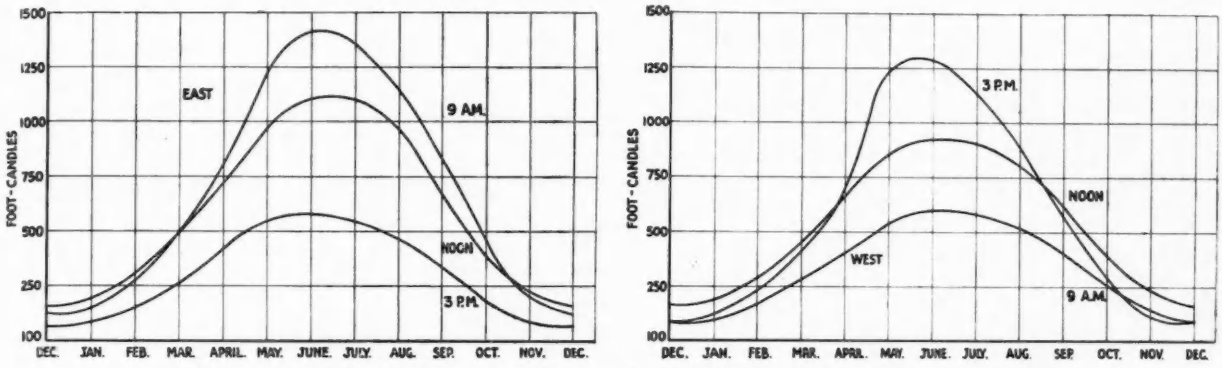
The illumination of a surface exposed to the complete hemisphere of sky is, of course, obtained by adding the ordinates of all four curves, for the appropriate time of day.

Although a good deal of information can be obtained from the curves of figures two to five, it is sometimes





Figures two and three. Annual curves of average daylight, at three times of day, obtained by exposing a surface in an octant screen with aspects to the north and south skies respectively.



Figures four and five. Annual curves of average daylight, for east and west aspects respectively.

desirable to have more complete knowledge of the variation of daylight throughout the period from before sunrise until after sunset. Measurements at three times in the day are scarcely sufficient, and it is for this reason that attempts are being made to develop apparatus which will automatically record the daylight illumination and so give a complete chart of the variation throughout each day. Such apparatus must depend on the use of a light-sensitive device such as a photo-electric cell. These cells have been used for the purpose of obtaining daylight records in America for some years and a recorder based on their use is now being developed at Teddington. A typical record for an average day is shown in figure six. On a dull day the record is, naturally, much more steady, while on a bright day, with white clouds on a clear sky, it is much more irregular than that shown.

WINDOW-GLASS TRANSMISSION

It is generally assumed that the loss of light by absorption in ordinary window glass of good quality is negligible if the glass be kept in a reasonable state of cleanliness. This, however, is scarcely true when, as in many practical cases, the window is much obstructed, so that the greater part of the light reaches the window obliquely. For light incident normally, it is true, about 90 per cent. of the incident light is transmitted, but careful measurements have shown[1] that when all the light is incident at angles of 45° or more, the transmission factor drops to about 77 per cent. for ¼-inch plate. Measurements made at the same time on other types of glass showed transmission factors ranging from about 83 per cent. to 34 per cent. Rough rolled glass transmitted 82 per cent. of normally incident light and 67·5 per cent. of light incident at 45° and over. Corresponding figures for Hartley's rolled were 70 and 53 per cent. or 81 and 40 per cent., depending upon whether the light was incident on the smooth or the fluted surfaces of the glass. Wired rolled glass gave transmission factors of 67 and 53 per cent. under the same conditions as to incidence of the light, while prismatic glasses of various types gave values ranging between 82 and 46 per cent. It should, perhaps, be remarked here that these percentages refer to the total amount of light transmitted through the sample of glass, without reference to its distribution. The principal object of prismatic glasses is, of course, to increase the amount of light reaching parts of the interior of a building.

It is not unnatural to suppose that glasses differ in their capacity for holding dirt and that therefore their transmission factors will fall at different rates if they are allowed to go uncleaned for lengthy periods in a city atmosphere. Some tests are now in progress on this matter, a number of samples of glasses being exposed at Westminster and measured periodically. The measurements have not yet been continued for sufficiently long to allow of publication of the results.

(To be continued)

[1] *The Transmission of Commercial Window Glass*, by C. J. W. Grieveson. Technical Paper No. 2 of the Illumination Research Committee, D.S.I.R.

A BRITISH Standard Specification (No. 398–1930) has been issued, classifying the characteristics of internal light fittings. It first defines the polar curve of light distribution, the solid of light distribution, and symmetrical and asymmetrical light distributions. Symmetrical light distributions, whose axes are regarded as vertical, are then classified (specific definitions being given). The "frame ratio" is used to define various classes of light distribution. (28 Victoria Street, London, S.W.1. Price, 2s. 2d., post free.)

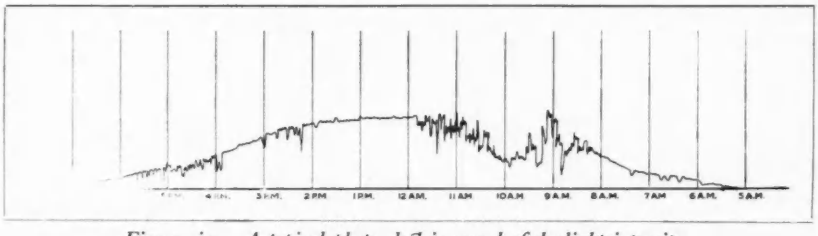


Figure six. A typical photo-electric record of daylight intensity.

IN view of the considerable interest shown of late in the effect of the ultra-violet rays of sunlight upon the human body and in the consequent introduction of window glasses that transmit them, investigations have been undertaken into the whole subject. The physical factors which bear on the physiologically active radiation of sunlight are briefly considered and the development and properties of ultra-violet transmitting window glasses are discussed in Bulletin No. 8 of the Building Research Station (H.M. Stationery Office, price 4d.). After a theoretical examination of the intensity distribution of ultra-violet radiation in a room glazed with special glass, the conditions under which this glass may be used with greatest effect are indicated. The final conclusion at which the report arrives is that, leaving out of account buildings designed specifically for sun treatment, although ultra-violet glass in large unobstructed windows can admit therapeutic radiation in appreciable quantities, to receive this radiation it is essential to sit near a window or in the direct rays of the sun. Glass seems to be available commercially which may be expected to transmit fully half the therapeutic rays falling on it.

QUESTIONS THAT ARISE

Gable Ends

H. O. S. writes: "*What is your expert's opinion on the following two questions: (a) What is the best method of finishing the gable ends of a pantile roof? One end shows the upward end of the pantile and the other the downward one. Can they be made to match? (b) Quite a number of old cottages have a little gable at the ends of hipped roofs, which is sometimes filled in with wood louvres. I am interested to know whether this is done for ornament, or as a means of ventilating the roof timbers.*"

With regard to question (*a*) I consider that the best finish to gable ends is with a parapet in the Flemish manner, either in the form of a stepped gable, or following the pitch of the roof and rounded at the apex.

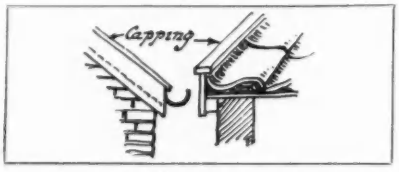


Figure one.

A much cheaper method, often used, is where the gable is finished with a barge board on an external rafter, nailed to the face of the wall; a capping is placed at the top to cover the tile, as shown in the accompanying figure one. For many interesting points on pantiling, I should advise your correspondent to consult *Little Things That Matter*, by Edwin Gunn, published by the Architectural Press.

(*b*) In the older work the gable noticed by your correspondent is a constructional device whereby the builders avoided a complicated joint at the head of the hip rafters as shown in figure two. A large number of these

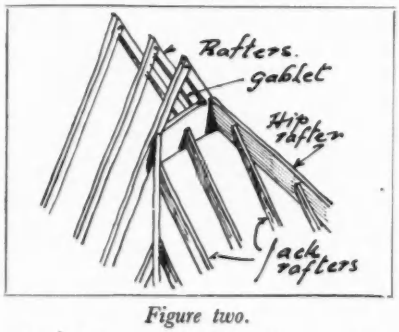


Figure two.

old roofs were built without ridge pieces, the rafters being halved and pegged together, and the gablet provided a workmanlike job. Mr. Gunn, in his book, *Little Things That Matter*, suggests the gablet should be used in modern work.

It was at times left open as a means of ventilation, but this was not the origin of the feature. W. H. C.

Heather Thatching

E. R. writes: "*I have received the order to re-thatch a small summer-house with heather, and shall be glad if you will let me know where heather is obtainable for this purpose.*"

Heather for thatching can be obtained from Messrs. Inman & Co., Rustic Works, Stretford, Manchester.

Except in the north of England and Scotland, where it is still occasionally used for ordinary purposes, heather thatching is almost restricted to summer-houses, pavilions, bird-tables, and so forth. It is not a difficult craft, bundles of heather, lapped somewhat similarly to slates or tiles, being bound with stout tarred twine to battens or rafters in such fashion that each succeeding bundle covers the tying of those beneath. The eaves courses should be well tilted and packed hard and solid, the soffit being well trimmed off to a slightly undercut line with stout shears after the roof is finished.

E. G.

Errors in Bills of Quantities

"Snod" writes: "*The reply given by 'H. S.' to the query regarding errors in bills of quantities* (September 17 issue) *appears to me to be an absolute reversal of the true position. By the statement in the query, 'based on bills of quantities,' I presume it is intended that the contract is a 'lump sum contract where bills of quantities form part of the contract.'*

"*Just as the builder contracts to 'carry out certain building works for a stated lump sum,' so does he, in the instance given, contract to carry out 100 feet lineal of some work for £7 10s. Any variation made in quantity when the work is executed must be paid for at £7 10s. + 100 per foot lineal = 1s. 6d.*

"*If the 15s. per lineal foot is a reasonable price for the work, it is a very unfortunate position for the builder, but he must bear the loss incurred by his own errors, unless the building-owner agrees to pay the extra when the circumstances are explained to him.*

"*If the rate per unit (i.e. 15s.) formed the contract it would be a different type of contract, viz., 'a schedule contract' in which the rates per unit would be scrutinized by the quantity surveyor and extensions carefully checked, and if the error was not then brought to light the builder would have a claim against the building-owner owing to neglect on the part of his agent.*

"*It is quite possible that the builder would not have secured the contract, in the instance mentioned, if he had extended the item correctly, and if the claim were allowable we should find the error 'made on purpose' and lump sum tenders would then be useless, as there would be no guarantee of the lump sums indicating the comparative prices of the builders tendering.*"

If "M. G.," in his query on errors in bills of quantities (September 17 issue) means that quantities form part of the contract, then I agree with "Snod," that strictly under this agreement any variation made in quantity must be paid for as he suggests.

There is now a growing tendency for the quantity surveyor to check the extensions of the lowest tender and report any errors to the architect for adjustment before the contract is signed, even when quantities form part of the contract. If this is done, no errors will have to be dealt with in the final settlement. H. S.

Party Walls

P. L. T. writes: "*I own the middle of three adjacent plots. Am I correct in claiming the right to allow the footings of the party walls I am about to erect to project on to the plots to either side?*"

With regard to buildings in the London area, the reply is covered by a digest of the procedure under the London Building Act, 1894. A building owner desirous of erecting a party wall must give notice to the adjoining owner, describing the proposed wall. With the consent of the adjoining owner, a party wall may be built half on the land of each, or as agreed; the expense to be shared in proportion to the use which may be made of the wall by the respective owners.

Where the owner proceeds to build an external wall on his own land, as in the case of the querist, he shall have the right, at his own expense, at any time after the expiration of one month from the service of a notice (under section 87 of the London Building Act, 1894) on the adjoining owner, to place on the land of the adjoining owner, below the level of the lowest floor, the projecting footings of the external wall, with concrete or other solid substructure thereunder, making compensation to the adjoining owner or occupier for any damage occasioned thereby.

Where any difference arises between a building-owner and an adjoining owner in respect of any matter arising with reference to any work to which any notice given under this Act relates, unless both parties concur in the appointment of one surveyor, they shall each appoint a surveyor, and the two surveyors so appointed shall select a third surveyor, and such one surveyor or three surveyors, or any two of them, shall settle any matter from time to time during the continuance of any work to which the notice relates.

A. T. A.

FURNITURE DESIGN

THE Autumn Exhibition of Furniture and other household articles designed by Frank Brangwyn, R.A., and organized by Messrs. E. Pollard and Co., Ltd., supplies a long-felt need.

Here we are provided with ample proof that furniture can be designed by an artist without the sacrifice of comfort and convenience and that additional expense usually entailed by the provision of something unique or æsthetic. As a matter of fact, "æsthetic" is a term Mr. Brangwyn somewhat eschews. He is eminently practical-minded, and his approach to his work is rather that of a workman tackling the various technicalities of his job from a common-sense standpoint.

His furniture is made for use, and its beauty of contour and proportion and embellishment is particularly derived from its inherent fitness of purpose and a regard for the nature of the material itself. The chairs have an amplitude implying comfort; likewise, with close attention to technical efficiency, the drawers of the cabinets open with swift and flowing motion.

Ornamentation is chiefly of contrasting inlay as exemplified by cabinet (No. 5977), a typical example in which the grain of the wood is utilized in a colourful manner; an otherwise unbroken space is relieved by a simple rectilinear design with an ornamented hinge to form a pleasing adjunct, e.g. china cabinet (No. 220). This is a unique specimen, displaying Brangwyn's ingenuity and attention to minutest detail even to the design of the cup hangers themselves. Nowhere are we confronted with ornate carving to harbour dust, nor applied to meaningless accessories merely to demonstrate the artist's fancy.

The keynote of Brangwyn's designs is his directness of association between the materials employed and the object to be served. It is this contact with concrete facts which enables him to tackle the problem of the machine and leave the beaten tracks of the "arti-handi-crafts" which, however estimable the intention, have done much to distort the mind of the average person as to the value of art in conjunction with things of practical service.

Sir John Lavery, R.A., LL.D., in a speech before opening the exhibition, said he was told that in nearly all industries where design and colour were required they, in Great Britain, were heavily handicapped in competing with foreign production because of the want of encouragement given to science and art students when they left the schools, and also because the student himself believed that the designing of things in everyday use required a lower order of intelligence than the painting of a picture, and to be associated, however indirectly, with commerce was disastrous to art. It was high time that the myth should disappear.

G. R.

LAW REPORT

QUESTION OF RESERVATION OF MINERALS

Dunn v. *Purdon. Chancery Division. Before Mr. Justice Luxmoore*

THIS action concerned a dispute as to the purchase of land and a bungalow in Yorkshire, and one of the points raised was as to the minerals under the land. Plaintiffs, Mr. and Mrs. Dunn, sued for specific performance of a contract to purchase for £1,900 a bungalow and thirty acres of land, and set up a contract, contained, it was alleged, in certain letters.

Defendant denied that the letters set up any contract, and said if they did disclose a contract it was to be construed as the sale of an unencumbered fee simple in possession and that the plaintiffs could not convey the whole of the fee unencumbered, because they did not own the minerals as the property was subject to a colliery lease.

Plaintiffs, in their reply, said that was quite true. They admitted that there were defects in the title regarding the mineral rights, but they pleaded that the defendant had full prior notice of it.

Mr. Morton, K.C., for the plaintiffs, called Mr. Dunn, who said the defendant had full knowledge of the restrictions concerning the minerals. When the defendant broke off negotiations the reason he gave was that the mineral restrictions were too onerous.

Mr. Spens, K.C., appeared for the defendant, who gave evidence and denied plaintiffs' allegations, saying he did not know of the existence of the mining lease until he took the draft contract to his solicitor.

His lordship dismissed the action with costs, saying it was clear from the correspondence that there was an open contract for the sale of the bungalow and the land. The question that arose upon that was whether the land was sold subject to the reservation as to the minerals and the colliery lease. Plaintiffs' letter to the defendant made it clear that there were some mineral reservations, but there was no reference to a lease. Defendant had stated that he read the letter, but he did not examine the contract, sending it back with the intimation that the sale could not go through. If the defendant had read the contract he would have seen that the land would be sold subject to the reservation of the minerals. To succeed the plaintiffs must show that the defendant knew what was in the contract. To his lordship's mind it had not been established that the defendant knew of the lease to the colliery company of about nineteen acres of the land, and with regard to the remaining eleven acres he knew neither of the reservation of the minerals nor of the lease. Under these circumstances he could not enforce specific performance on an unwilling purchaser.



Dresser in ash, with cupboards and three drawers below. The cupboard front is of marquetry, introducing Circassian ash. An exhibit in the Brangwyn–Pollard Exhibition.

R.I.B.A. FINAL EXAMINATIONS

Alternative Problems in Design

FOLLOWING is a list of R.I.B.A. problems in design for the year ending December 31, 1931. Additional copies of the list may be obtained on application at the R.I.B.A. :

1. The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, R.I.B.A., 9 Conduit Street, W.1, on or before the dates specified below.

2. Each set of drawings must be signed by the author, and his full name and address, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the student that the design is his own work, and that the drawings have been wholly executed by him. In the preparation of the design the student may profit by advice.

4. Drawings for subjects *a* are to have the shadows projected at an angle of 45° in line, monochrome, or colour. Drawings in subjects *b* are to be finished as working drawings. Lettering on all drawings must be of a clear, scholarly, and unaffected character.

5. After a design has been approved it may be re-submitted together with the specified working drawings on *any* of the dates for submission of drawings given below.

6. All candidates taking the Final Examination in 1932 and subsequent years will be required to include in the four Testimonies of Study for which they must secure approval before being admitted to the Examination, one out of the two subjects set annually as R.I.B.A. Problems in Design involving a simple acoustic treatment with calculations to give the appropriate time of reverberation. The two subjects set for 1931 which may be treated acoustically are Problems Nos. CXVIII and CXXI. A list of articles and books on the subject to guide candidates in obtaining the necessary information may be obtained free on application to the Secretary, R.I.B.A.

CXV.—*b :* Working drawings for Subject No. CXIII *a. A Housing Scheme in the North-West London Area.*—The design for a first pair or group of cottages along the Estate Road on the south-east side of that road may, after it has been approved, be re-submitted with complete working drawings to the scale of 8 ft. to 1 in., with detail elevations facing the two roads to the scale of half-inch to 1 ft.

CXVI.—*b :* Working drawings for Subject No. CXIV *a. A Secondary School for about 200 Boys.*—The design may, after it has been approved, be re-submitted with half-inch details of a portion of the front, including the main entrance, and full-size details.

CXVII.—*a : A design for a Shopping Arcade.*—To be erected on an island site, measuring 250 ft. by 150 ft., with streets on all sides, in the shopping district of a large town which is to be developed as a shopping arcade. A pavement will surround the entire site, towards which shops may face, as well as on to an arcade or arcades, which latter may suitably be top-lighted. It may be assumed that the demand will be mainly for small shops, although it should be possible for one shop to occupy several bays or sections if desired. Ample show space should be provided, with storage either in basements or on first floors or galleries. Small office accommodation for use with the shops should be provided, but independent office accommodation over the shops is not required. The arcades will be open at night and artificially lighted. Facility of police supervision should, therefore, be considered. The scheme should also provide the following : Lavatories and rest room for both sexes for shop assistants; small office for superintendent and letting agent; heating chamber; provision for collection and disposal of refuse.

Drawings required : Plan of all floors to one-sixteenth-inch scale. Two street elevations to one-sixteenth-inch scale. Sufficient sections to show the design generally, and particularly the arcades, to one-sixteenth-inch scale. Detail of one bay of street elevation and one bay of arcade to half-inch scale.

The design for the shopping arcade may, after it has been approved, be re-submitted with the addition of working drawings showing the ground-floor plan and longitudinal and cross-sections through arcade to one-eighth-inch scale.

CXVIII. — In accordance with instruction to candidates number 6 (above), section *a* of Problem in Design No. CXVIII may be treated acoustically. *a : A design for a Pump Room.* At a Spa such as Bath or Leamington it is proposed to erect a pump room in which the medicinal waters can be taken. The road frontage is 200 ft.; the site is of considerable depth and gives access to public gardens. The buildings are to be placed in close proximity to the road, with a layout of terraces, etc., towards the public gardens. The ground has a slope of 1 ft. in 5 ft. down from the roadway. A large hall must be provided, about 4,000 sq. ft. —this to include space for the medicinal spring or fountain, a band platform, recesses, colonnades, or other architectural features. Particular attention should be paid to the provision of good natural lighting and a view over the terraces and gardens, to which latter there should be easy access. The following additional accommodation will be required : Reading room, writing room, small service room, staff rooms and bandroom, and cloakrooms and lavatories.

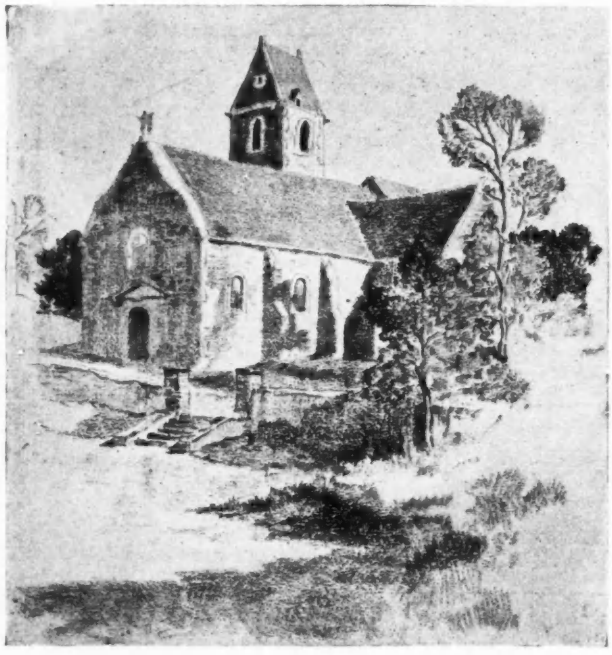
Drawings required : One-sixteenth-inch scale layout plan showing buildings and immediate surroundings. Plan, cross-section and elevations of entrance and garden frontages, all to one-eighth-inch scale. Half-inch detail of the fountain. *b :* The design for a pump room may, after it has been approved, be re-submitted with the addition of a half-inch cross-section through the building showing the roof construction, together with one-eighth-inch scale working drawings.

CXIX.—*a : A design for a Branch Bank on a corner site,* to be built on a level corner site at a junction of a main and a side road. The site has a fifty feet frontage to the main road, and a ninety feet frontage to the side road, part of which may be left open as a garden. The accommodation required is : Banking hall (approximately fifteen clerks); shop to main road, and so arranged that it can be taken into banking hall at a later date; manager's room and waiting room; stairs and lift to strong room in basement; male and female lavatories, two or three average size flats above Bank with entrance from side street.

Drawings required : Plans, sections and elevations to scale of one-eighth-inch to a foot. Section through the banking hall, showing fittings, to scale of half-inch to a foot. *b :* The design for a branch bank on a corner site may, after it has been approved, be re-submitted with the addition of working drawings of the main front with plans and sections of front to a scale of half-inch to a foot, with a sheet of full-size details.

CXX.—*a : A design for a Housing Scheme.* On the north bank of a tidal river in Essex lies a level site having a river frontage of 100 yards; depth from the river, 242 yards. The western boundary is formed by an existing road at right angles to the river, with a few shops on its west side. The eastern boundary is the dock wall, which is diagonal to the river. The length of the north boundary of the site is 300 yards. There is an embankment road on the south side of the site, terminating in the dock gates at the south-east corner of the site. It is desired to build on this piece of land twenty two-bedroom flats, with a floor area of about 600 feet super each; ten three-bedroom parlour-type houses, with a floor area of 920 feet super each; twenty three-bedroom non-parlour houses, floor area 820 super feet each.

Drawings required : Complete layout with roads, paths, gardens, etc., showing all buildings to a scale of one upon five hundred; elevation of south and west sides of complete scheme to a scale of sixteen feet to the inch. Plan of one



Sketch in coloured chalks. By Jasper Salwey. (*See book review on pages 590–1*).

[*From* The Art and Practice of Sketching.]

floor of the flats. Plans and two elevations of one cottage to a scale of eight feet to the inch. The design may, after it has been approved, be re-submitted with the addition of a working drawing to half-inch scale, showing one complete section and two elevations of a block of the flats.

CXXI.—In accordance with Instruction to Candidates number 6 (above), Section *a* of Problem in Design No. CXXI may be treated acoustically. *a: A design for Offices for an Association of Manufacturers.* A group of important foreign industrial concerns have secured a corner site in London for their use as a common meeting place, and also to provide accommodation for their Chairman when in town. The site is level and rectangular, having a frontage of sixty feet to a main street and eighty feet to a side street. Accommodation required: Top-lighted conference room, to accommodate fifty people, with raised dais at one end; area about 800 square feet; retiring room to accommodate six people, with private external entrance; committee room; waiting room; entrance hall; staircase and lifts; lavatories and cloakrooms; chairman's sitting-room, with servery adjoining, bedroom, etc.; bathroom; general and two private offices; caretaker's living room, two bedrooms, and bathroom, with kitchen in touch with the servery, but not necessarily on the same floor.

Drawings required: Plans of each floor, two elevations and one section, to eighth-inch scale, and a detail of a small portion of the building to half-inch scale. The design for Offices for an Association of Manufacturers may, after it has been approved, be re-submitted with the addition of working drawings of the front and of the roof over the conference room to half-inch scale, with a sheet of full-size details.

CXXII.—*a: A design for an Entrance to a Botanical Gardens.* A new main entrance to a Botanical Gardens is to be formed on a by-pass road. The gates should be well set back from the roadway. Turnstile entrances for pedestrians, and also entrances and exits for carriages must be provided; due regard must be paid to persons and carriages entering and leaving the grounds. An office for attendants, small shop for the sale of postcards and guides, and cloakrooms are to be incorporated in the entrance design.

Drawings required: Plans, elevations and sections, scale eighth-inch to one foot. A portion of this scheme to be detailed to half-inch. The design may, after it has been approved, be re-submitted with the addition of complete eighth-inch scale working drawings and such half-inch details as would be required by the builder.

Dates for the Submission of Designs in 1931: Subject CXVII, February 27; Subject CXVIII, April 30; Subject CXIX, June 30; Subject CXX, August 31; Subject CXXI, October 30; Subject CXXII, December 31.

SOCIETIES AND INSTITUTIONS

R.I.B.A. EXAMINATIONS

The forthcoming final and special examinations will be held on the following dates:

Final Examination: December 3, 4, 5, 6, 8, 9, 10 and 11, 1930 (last day for receiving applications: November 3, 1930).

Special Examination: December 3, 4, 5, 6, 8 and 9, 1930 (last day for receiving applications: November 3, 1930).

SUFFOLK ARCHITECTS

On Saturday afternoon, October 4, about thirty members and friends of the Suffolk Society of Architects visited Orford Castle, and were conducted over the castle by Mr. H. Munro Cautley, A.R.I.B.A., who was the architect for the recent restorations carried out there. Before proceeding inside, Mr. Cautley gave a brief outline of the history of the castle, which was built in 1173-78.

The outstanding features about this castle are the remarkable state of preservation of the keep, which is all that remains, and the fact that here is found the first attempt, in a building of this kind, to provide sanitary conveniences. Latrines exist in several apartments, and there are sinks installed in the kitchens. It is probable that the whole castle was at one time surrounded by a wall, a portion of which has been revealed by excavation, and a moat.

The walls of the keep are built of a stone which has now definitely been proved to have been taken from a quarry near Ancaster, and Septuria, which was obtained locally, and is found in many churches throughout Suffolk. This is rather badly weathered. Caen stone has also been used inside.

The visitors spent two hours looking over the castle.

CHELMSFORD ARCHITECTS VISIT BURNHAM

About forty members of the Chelmsford Chapter of the Essex, Cambs. and Herts. Society of Architects, accompanied by lady friends, recently visited the Mildmay Ironworks of Messrs. Booth and Brookes, Ltd., and were shown over the works, being much interested in the various processes in connection with the manufacture of piano frames. Special interest was taken in a new window sill which the company have patented. The visitors lunched at the Royal Burnham Yacht Club. The party afterwards went to Creeksea Place, travelling up the river to Creeksea by motor boat.

THE MEDIÆVAL CATHEDRAL

Sir Banister Fletcher, P.R.I.B.A., F.S.A., at the Central School of Arts and Crafts on Wednesday last, lectured on the origin and design of the mediæval cathedral.

The cathedral church, he explained, was gradually evolved from earlier building types through successive periods, and was enlarged and enriched as the ritual needs and devotional spirit grew. The plan may have been derived from several sources in remote pagan days. He described the chief features of the cathedrals of Western Europe, more especially of France and England, and concluded by giving some vivid glimpses, by means of lantern slides, of typical home and Continental cathedrals.

TOWN PLANNING

The annual country meeting of the Town Planning Institute was held recently at Leicester. Mr. Pritchard, the town clerk of Leicester, in a paper read at the opening session, traced the history of Leicester from pre-Roman days down the ages to the present time, and dwelt especially on the centuries when the history of England centred very much in this part of the country. Mr. A. T. Gooseman, the city engineer and surveyor, also gave an interesting address on the various developments and town-planning improvements taking place at present in Leicester and the environs.



From This England.] [*By F. J. Gould.*

A Sussex mill and shepherd. (*See Book Review on page 590.*)

His paper dealt with the difficulty of coming to a mutually satisfactory financial arrangement with the adjoining authorities, concerned in a joint town-planning scheme. Secondly, it gave the experience gained in the carrying out of a scheme under the powers conferred by the Interim Development Order, which he thought would illustrate that, even with these limited powers, town planning had justified itself, and finally, that the Leicester new street and widening scheme in the centre of the city would clearly show the economic advantages of town planning as compared with the great expense involved in widening streets in built-up areas.

SOUTHEND SCHOOL OF ARTS AND CRAFTS

The School of Arts and Crafts, Southend-on-Sea, has now entered upon its fifth year as a recognized school of the R.I.B.A. up to the Intermediate stage, and although in close proximity to the metropolis still continues to form an efficient training centre for the future architect and allied craftsman.

In addition to the three-year certificate course in architecture, instruction is given in all sections of building craftsmanship, the syllabus being so arranged that there is a mutual interchange of students in all branches of the school activities. The need for a close acquaintance with the practical side of their craft for students taking the three-year course is fully recognized and provided for, instruction being given in brickwork, masonry, carpentry, joinery, plumbing, plasterwork and modelling—the practical work being closely linked up with exercises in the studio. The facilities for a grasp of essential æsthetic considerations are available for students taking special craft instruction, the syllabus being so drafted as to afford a comprehensive balance. Under an arrangement with the Board of Architectural Education it is now possible, in special cases, for a student of the Junior Art Department to proceed to the senior school.

Facilities for a comprehensive training and choice of courses in these and other subjects have been provided by the local authority, and the total number of students taking advantage of this programme, both day and evening, is on the increase, the total enrolled last session being 1,451.

A certain number of entrance and other scholarships are available for promising students, and close contact is preserved with employers.

Particulars of courses and fees can be obtained either from the Education Offices, Warrior Square, Southend, or from the School.

OBITUARY

ALFRED E. PAINTER : 1875-1930

We regret to record the death of Mr. Alfred Eaton Painter, L.R.I.B.A., of Wolverhampton, after a long illness.

He was articled to John Weller, of Wolverhampton, and commenced private practice in that town in 1899. He was responsible for the design of many buildings in the district, including the Women's Hospital, the Scala Cinema, Prestwood Sanatorium, Kinver; The Limes Sanatorium, Himley; and St. Paul's Sunday schools, now in course of erection.

For over twenty-three years he was a member of the Wolverhampton Town Council, and at one time senior councillor. Mr. Painter was fifty-five years of age.

P. F. CRINKS : 1879-1930

We regret to record the sudden death of Mr. P. F. Crinks, a well-known member of the electrical profession. Mr. Crinks was a pupil of Mr. H. Faraday Proctor, and later held several appointments on the engineering staff of the Bristol Corporation Electricity Department. He joined the British Westinghouse Electric and Manufacturing Company in 1910, and for several years represented them in the Western Circuit. After being transferred to the London office of this company, he was appointed London sales manager for Metropolitan-Vickers Electrical Company and later managing director of Metro-Vick Supplies, Ltd. He was a prominent member of the E.L.M.A. and E.D.A. Councils. Mr. Crinks was fifty-one years of age.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :

New Science Workshops, Christ's Hospital, Horsham (pages 572, 575-578). General contractors, Henry Norris and Son, Ltd. Quantity surveyors, Young and Brown. Stone carving, George Alexander. Electrical installation, W. J. Strand. Clerk of Works, F. H. Pendrey. Foreman of Works, J. Lemmon. Sub-contractors : Acme Flooring and Paving (1904) Co., Ltd., wood block flooring; Bromsgrove Guild, cast lead fountain and stone seats; A. Gallenkamp & Co., Ltd., laboratory gas and water taps; Durbin and Sons, plumbing and drainage; Empire Stone Co., Ltd., reconstructed stone; J. W. Gray and Son, Ltd., lightning conductors; G. N. Haden and Sons, Ltd., central heating; McDowell Steven, cast rainwater heads and downpipes; Roberts Adlard & Co., roof tiling; Sussex Brick Co., Southwater facing bricks; Smith Walker, Ltd., constructional steelwork; Siegwart Fireproof Floor Co., fireproof floors; Stuarts Granolithic Co., Ltd., granolithic stairs; Martin Van Straaten, wall tiling; C. E. Welstead, Ltd., casements and lead lights; William White, White's Hygeian rock composition; W. Bainbridge Reynolds, Ltd., vane, lanterns and wrought ironwork. The whole of the workshop benches and equipment have been made by the general contractors from designs by the architect in consultation with the Senior Science Master, Mr. D. H. Burleigh.

House at Littlestone-on-Sea, Kent (page 579). General contractors, Ellis Bros. Sub-contractors : Bratt Colbran & Co., grates; Crittall Manufacturing Co., Ltd., casements.

COMPETITIONS OPEN

October 20.—The Maternity and Child Welfare Committee of the City of Birmingham invites architects to submit competitive designs for two infant welfare centres, one at Warren Farm Road, Kingstanding (Perry Barr), and the other at Trittiford Road (Billesley). Competitors must have occupied offices in Birmingham as their head office for six months prior to July 19, 1930. Assessor : A. T. Butler, F.R.I.B.A. Premiums, £100 in respect of each centre. Conditions of competition and plans of the sites may be obtained on application to Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor, the Council House, Birmingham. Deposit £1 1s. for each centre. Latest date for submission of designs : October 20.

October 30.—The General Building Syndicate, Ltd., invites architects to submit competitive schemes for the development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums : £250, £100 and £50, for first, second and third prizes, respectively. Particulars, etc., are obtainable on application to the Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs : October 30.

November 30.—The Burton-on-Trent Local Education Authority invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor : H. T. Buckland, F.R.I.B.A. Premiums : £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs : November 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young

Communist Square), and will contain a mass musical stage, and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

February 1.—The Norwich Corporation invites architects practising in Norwich and in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, OCTOBER 15

R.I.B.A., 9 Conduit Street, W.1. Exhibition of drawings by students exempted from the R.I.B.A. Final Examination. Until October 20. 10 a.m. to 8 p.m. (Saturdays, 10 a.m. to 5 p.m.). Also Statutory Examinations for certificates of competency to act as district surveyor under the London Building Acts and building surveyor under local authorities. Until October 17. **10 a.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "The Character of Mediæval Architecture." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. First of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

HOUSING AND HEALTH EXHIBITION, Kelvin Hall, Glasgow. Until October 18. 10 a.m. to 10 p.m. **10 a.m.**

AUSTRALIAN TIMBER EXHIBITION. At Australia House, Strand, W.C.2. Exhibition will remain open until November 7.

THURSDAY, OCTOBER 16

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. First of eight public lectures on "Greek Myths and their Representation in Art." By Professor E. A. Gardner. (Lantern Illustrations.) **5 p.m.**

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to Cement Marketing Company's Laboratory, Portland House, Tothill Street, Westminster, S.W.1. (Party limited to 30.) **7 p.m.**

SATURDAY, OCTOBER 18

Sunrise, 6.27 a.m. Sunset, 5.2 p.m.

MONDAY, OCTOBER 20

R.I.B.A., 9 Conduit Street, W.1. Council Meeting. **4.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Public Lecture on "More Roman Towns in North Africa." By W. N. Neech, M.A. Chairman: Professor H. E. Butler, M.A. (Lantern Illustrations.) **5.30 p.m.**

BIRMINGHAM WELFARE CENTRES COMPETITION. Latest date for submission of designs.

TUESDAY, OCTOBER 21

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Croydon Chapter. At the Free Library, Croydon. "Modern Conditions and their Influence on Architectural Design." By Hugh Macintosh, F.R.I.B.A.

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Art." By Gui St. Bernard. **8 p.m.**

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to Cecil Sharp House, 2 Regent's Park Road, N.W.1. H. M. Fletcher, the architect, will describe the building. **8.30 p.m.**

WEDNESDAY, OCTOBER 22

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Romanesque Period in Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Second of a course of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTE OF FUEL. Annual Conference to be held at the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2, until October 23. Evening: Annual Dinner to be held at the Connaught Rooms, Great Queen Street, W.C.2, at 6.45 p.m.

THURSDAY, OCTOBER 23

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Literature Standing Committee.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Croydon Chapter. Dinner and Dance to be held at the Greyhound Hotel, Croydon. Tickets: 12s. 6d. single, 20s. double.

INSTITUTION OF ELECTRICAL ENGINEERS, Savoy Place, Victoria Embankment, W.C.2. Inaugural address by the President, C. C. Paterson, O.B.E. (Light Refreshments 5.30 p.m.). **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.2. Yates Lectures. Second of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor E. A. Gardner. (Lantern Illustrations.) **5 p.m.**

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by T. J. Clark, A.I.STRUCT.E., of the British Portland Cement Association. **7.30 p.m.**

FRIDAY, OCTOBER 24

R.I.B.A., 9 Conduit Street, W.1. Exhibition of drawings by students exempted from the R.I.B.A. Intermediate Examination. Until October 31. 10 a.m. to 8 p.m. (Saturdays, 10 a.m. to 5 p.m.).

SATURDAY, OCTOBER 25

Sunrise, 6.40 a.m. Sunset, 4.48 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the works of Messrs. Johnson, Dartford. **2 p.m.**

TUESDAY, OCTOBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "English Ironwork." By Edward Yates. **7 p.m.**

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Architecture: the Citizen's Part." By Clough Williams-Ellis, F.R.I.B.A. **8 p.m.**

WEDNESDAY, OCTOBER 29

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Last of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Romanesque Period in North and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

THURSDAY, OCTOBER 30

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Third of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. First of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

BURTON-ON-TRENT COUNCIL SCHOOL COMPETITION. Latest date for submission of designs.

SATURDAY, NOVEMBER 1

Sunrise, 6.52 a.m. Sunset, 4.34 p.m.

HORNIMAN MUSEUM, Forest Hill, S.E.23. "London in the Stuart Age." By D. Martin Roberts, M.A. (Lantern Illustrations.) **3.30 p.m.**

MONDAY, NOVEMBER 3

R.I.B.A., 9 Conduit Street, W.1. Allied Societies Conference, 2 p.m. Meeting of the Board of Architectural Education, 2.30 p.m. Council Meeting, 4.30 p.m. Opening General Meeting; address by the President, Sir Banister Fletcher, P.R.I.B.A., F.S.A. 8.30 p.m. **2 p.m.**

TUESDAY, NOVEMBER 4

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Practice Standing Committee.

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Public lecture on "Egyptian Statues." By Miss M. A. Murray. (Lantern Illustrations.) **5.30 p.m.**

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Industry." By Sir Walter Layton, C.H. **8 p.m.**

WEDNESDAY, NOVEMBER 5

R.I.B.A., 9 Conduit Street, W.1. Meetings of the Art Standing Committee and the Board of Architectural Education Examinations Committee.

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in North Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. Sessional Meeting. "The Operation of the Heat Pump, and its Possible Applications to Heating Problems, particularly Swimming Bath Heating." By T. G. N. Haldane, M.A., A.M.I.E.E. **7 p.m.**

INSTITUTION OF SANITARY ENGINEERS. Annual Dinner to be held at the Holborn Restaurant, W.C. **7 p.m.**

THURSDAY, NOVEMBER 6

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. At the Municipal School of Art, Brighton. "Modern Buildings." By Francis R. Yerbury. (Lantern Illustrations.)

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lecture. Fourth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Second of a course of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Building: Its Sculpture and Painting." By Professor E. S. Prior (Lantern Illustrations.) **5.30 p.m.**

SATURDAY, NOVEMBER 8

Sunrise, 7.4 a.m. Sunset, 4.23 p.m.

MONDAY, NOVEMBER 10

SOCIETY OF MOTION PICTURE ENGINEERS. At the Royal Photographic Society, 35 Russell Square, W.C.1. "Sound Film Studio." By C. W. Glover, A.M.INST.C.E., M.I.STRUCT.E. **7.45 p.m.**

TUESDAY, NOVEMBER 11

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Life and the Countryside." By J. W. Robertson Scott. **8 p.m.**

WEDNESDAY, NOVEMBER 12

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. Smoking Concert, to be held at Booth's Restaurant, East Street, Brighton. Chairman: John L. Denman, F.R.I.B.A.

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in Central and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

THURSDAY, NOVEMBER 13

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Science Standing Committee.

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Fifth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Third of five public lectures on "Re-planning of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Modern Pigments: Their Proper Selection and Use." By A. P. Laurie, D.SC. **4 p.m.**

TRADE NOTE

Among the new catalogues issued by Messrs. A. Gallenkamp & Co., Ltd., are two dealing respectively with electrically heated laboratory apparatus and laboratory fittings, including Technico standard unit type benches. The firm have conducted a large number of experiments and tests during the last few years, in order to determine the most suitable method of heating, and to enable them to offer their clients, with confidence, electrically heated apparatus for the laboratory which will be efficient, economical, durable, and satisfactorily perform the work it is designed for. It is claimed that Gallenkamp electrically heated apparatus embodies the latest and best heating elements, and that the method of applying the elements is on the lines of the most approved modern electric heating practice. The design is such as to facilitate ease of inspection and replacement of the heating elements, and renewal elements can be fitted in a few minutes. Owing to the great success of the firm's Technico standard unit benches, they have designed further units, from which fittings for a complete laboratory can now be selected. The units are designed so that benches can be made up with bench tops to suit the size of room. Units are supplied with table plates which are slot-screwed into the top, in any position. In the event of leakages the units can be easily moved out to repair pipes, by placing a temporary support under the bench top or by fixing the bench top on supports. Copies of the new catalogue may be obtained from Messrs. A. Gallenkamp & Co., Ltd., Technico House, 17-29 Sun Street, and 1-3 Clifton Street, Finsbury Square, London, E.C.2.

A New Light Non-Corrosive Alloy

A day or two ago the writer visited Smethwick, where the new alloy, Birma Bright, is being produced, and Wolverhampton, where Messrs. Gibbons, Ltd., are fabricating it into metal windows, façades and architects' fittings. At Smethwick one learned something of the general theory of atmospheric corrosion. The objectives in the production of an anti-corrosive alloy are, first, to retard corrosion as nearly as possible to the vanishing point, and secondly to ensure that the colour of its "rust" is not far removed from that of the virgin material.

In Birma Bright, the metals making up the alloy are chosen for their close potential relationship, so that it has inherent stability and permanence within the molecule, and the forces tending towards its disruption are reduced to a minimum.

In practice this new alloy has been applied for the last six years to chemical plant—vats connections, taps, etc., used in acetic acid factories, jam factories and other trades. In these applications its anti-corrosive qualities were the principal attraction. More recently, however, the combined characteristics of lightness, strength and permanence have caused its introduction into maritime construction, and small motor-cruiser hulls are being built wholly of Birma Bright, for use in tropical waters. The success of the alloy in this application is certainly a striking one, since warm salt-water and marine growths are powerful enemies, and light hulls have hitherto succumbed very quickly to their onslaughts.

Tests carried out on Birma Bright surfaces show that after two years only very slight white spots appear on the surface, which are easily rubbed off with a soft rag. Other tests—in hard water, in acids and in ultra-violet light exposures, all seem to place the new alloy very high on the anti-corrosive scale. The colour of the polished surface and its texture is between that of aluminium and steel.

At Wolverhampton the writer was principally interested in reviewing the adaptability of the alloy. Raw materials take the form of sheets, pressings, castings, die-castings and extruded sections for metal windows. In the foundry he saw intricate castings, such as radiator grilles, being produced by standard practice and apparently without special difficulties. The surface seemed smooth and comparatively regular. Small parts such as hollow door knobs were cast from metal moulds and had an almost polished surface.

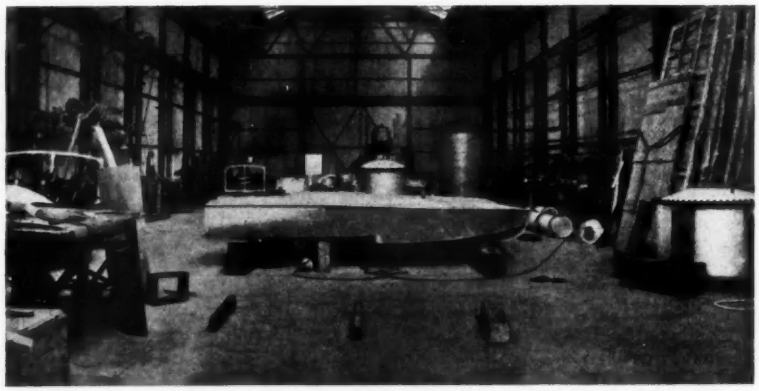
Pressings for finger plates, roses and lock parts were being pressed from standard tools. Inquiries in the production shops indicated that the new alloy is tractable in turning, milling and filing operations, and calls for no special methods or precautions in manufacture.

In the casement shops, windows of normal design were being made principally for hospitals and showrooms. The material takes the form of bright extruded sections, and joints are made by acetylene welding. Welded joints were shown to be strong and reliable.

Another interesting characteristic of Birma Bright was demonstrated by examples of the anodium surface treatment. This appears to be a process of skin-hardening, comparable in a way to the well-known "blueing" process used on steel parts. Anodium Birma Bright has a wide range of colour. The normal one is grey-white. It is harder and less subject to scratching than the untreated surface; in fact, rubbing for half an hour with metal polish made no impression on the skin, and it is claimed to close the pores of the surface and so prevent the adhesion of dust and dirt to the surface. The material could be cleaned by washing with a hose-pipe after long exposure to the dust-laden atmosphere of cities. Certainly, the treated surface shows an appearance of hardness and imperviousness; dirt seems to rub off it, rather than into it.

This anodium film can be given chemical colouring, so that bronze, copper, old gold, and even blues, greens, purples and reds and greens can be reproduced upon it. Owing to the hardness of the film, the underlying surface can be made reflecting by such processes as engine turning, sanding or rippling. These delicate effects are protected by the impervious skin, and yet shine through by reason of its transparency. A curious range of colours and surface effects are thus obtained.

Probably these surface treatments will find a field in decoration, now that architecture is in closer harmony with colour schemes and metal work. At the moment, however, the readier outlet would seem to be for the standard anodium finish in hospitals and restaurants, where the need for cleanliness and permanence is paramount.



A 16-ft. outboard hull, cast, in two halves, in Birma Bright, ⅛-inch thick, and some chemical vats, in the workshops at Smethwick.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

The extensions to the Holy Ghost Church, BALHAM, will cost £3,000.

Sanction is to be obtained by the BERMONDSEY Borough Council to borrow £9,050 for the purchase of premises near Grange Road.

Plans passed by the BECKENHAM Council: Three houses, Scotts Lane; fifteen houses, Winchester Road; house, Foxgrove Avenue; house, Downs Hill; fifty-three houses, Birchwood Avenue; two houses, Hayes Way; nine houses, St. Mary's Avenue; sixty houses, Eden Way; 140 houses, Merlin Grove; house, Kelsey Way; house, Wickham Way; house, Foxgrove Road; three houses, Celtic Avenue; twenty-nine houses, Stanhope Grove; alterations, Manor House Club (Eden Park Hall), Croydon Road; additions, Wesleyan Chapel, Clock House Road; wireless factory, Kent House Lane; three residential shops and two lock-up shops, Upper Elmers End Road, by Eden Park station; six residential shops, Upper Elmers End Road; two houses, Mays Hill Road; four residential shops, High Street; four houses, Shortlands Road.

Plans passed by the BROMLEY R.D.C.: Garage, Pickhurst Rise; six pairs houses and one detached house, The Avenue, Park Langley Estate; house, Woodland Way; house and garage, Copse Avenue; forty-six semi-detached houses and garages, Hawkhurst and Sherwood Ways; pair of houses, Copse Avenue; pair semi-detached houses and garages, corner of Croydon Road and Hawes Lane; new road between Hawes Lane and Kent C.C. by-pass road and new cul-de-sac off Hawes Lane; garage, Hawes Lane; garage, Wickham Chase; house and garage, Croydon Road; shops and flats, High Street; garage, Langley Way; pair of semi-detached houses, Ravenswood Avenue; eight semi-detached houses, Boleyn Gardens.

The foundation stone of the new church of Our Lady of Grace and St. Teresa, The Green, CHINGFORD, Essex, was laid by the Bishop of Brentwood on Saturday, October 4.

Messrs. F. T. Wooding and Son are to erect houses in Holmside Road, Thurleigh Avenue and Nightingale Lane, CLAPHAM.

Plans for the Essex County Nursing Association's Training Home to be erected in Frizlands Lane, Dagenham, and for the Conservative Social Centre to be erected in Glebe Road, Dagenham, has been approved by the DAGENHAM Urban Council.

Plans passed by the EPSOM U.D.C.: Detached house, Beaconsfield Road, for Mr. Turner; bungalow, Grosvenor Road, for Mr. Harris; house, Woodcote Close, for Mr. R. G. Francis; house and garage, Christchurch Mount, for Mr. G. Pinto; house, Birches Close, for Mr. O'Shea; house and garage, Birches Close for Mr. P. Gibbons; flats at the rear of "The Shrubbery," South Street, for Mr. E. Uden.

Work is now in progress on the first part of the Underground Company's scheme for extending the Piccadilly Tube from HAMMERSMITH to NORTHFIELDS. The whole scheme is estimated to cost £3,000,000, and the Hammersmith to Ravenscourt section, on which work has now been started, will cost approximately £180,000.

Plans passed by the HENDON U.D.C.: New road and sewers off Selvage Lane, Mill Hill, for Messrs. E. Owers, Ltd.; seventeen shops with flats, Pennine Drive, Golders Green, for Messrs. J. Laing and Son; four pairs houses, Barnet By-pass Road, Mill Hill, for Mr. H. S. Bostock; twenty-four houses in road to be known as Cloister Gardens, off Hale Lane, Mill Hill, for Mr. W. F. Thorpe; forty semi-detached houses and one detached house in road to be known as Meadow Gardens, Mill Hill, for Mr. W. F. Thorpe; 290 houses, Colindeep Lane, Hendon, for Mr. H. V. Rowlands (subject to the surveyor's report); six pairs semi-detached houses, Walmington Fold, Woodside Park Estate, for Mr. F. J. C. Ingram.

It is expected that the east wing of the new County Hall, LAMBETH, S.E., will be completed within eighteen months.

It is estimated that the scheme for the restoration of Alexander Palace, MUSWELL HILL, will entail an outlay of £190,000, towards which the First Commissioner of Works has promised a Government contribution of £80,000.

Plans passed by the ORPINGTON Parish Council: House and garage, Mada Road, for Mr. W. J. Purton; house and garage, Woodride, Petts Wood, for Mr. R. Foster; two semi-detached houses, Manor Way, Knoll Rise, for the Silwood Construction Co., Ltd.; additions, Westfield School, High Street, for Mr. E. M. Lawford; house and garage, Woodride, Petts Wood, for Mr. E. H. Pyne; house, Woodride, Petts Wood, for Mr. E. V. Willis; three houses and garages, Woodride, Petts Wood, for Mr. W. Noel Rees; two houses, Park Avenue, Goddington Estate, for Mr. A. G. Conway; house and garage, Sutherland Avenue, for Mr. E. G. Burr; house and garage, Woodride, Petts Wood, for Mr. B. J. Vann; four houses, Charterhouse Road, for Mr. J. Edmonds; two houses, Grosvenor Road, for Mr. E. G. Burr; two houses, Prince's Avenue, Petts Wood, for Mr. Martin Lee Hull (garages attached); house, Mayfield Avenue, for Wheathill Estates, Ltd.

The Rugby Union propose to erect a new stand at the TWICKENHAM Ground. It will provide accommodation for approximately 12,250 people.

Plans passed by the UXBRIDGE Council: New distribution depot for United Dairies, Ltd.; three houses, Vine Lane; four houses, Honey Hill; ten bungalows and two houses, Hercies Road; seven shops with flats over, Uxbridge Road, Hillingdon, for Messrs. Barretts-Perkins, Ltd.; five shops, Swakeleys Road, Ickenham, for West Middlesex Investment Co.; forty-four bungalows, with road and sewer sections, Cherry Grove Estate, Hillingdon, for Home Roofs, Ltd.

SOUTHERN COUNTIES

Schemes costing over £74,000 have been approved by the BOURNEMOUTH Council to provide work for the winter.

The Education Committee of the EASTBOURNE T.C. recommend approval of preliminary plans for making the best use of the existing site for a new Girls' High School buildings.

Plans for the erection of forty cottages in Ham Lane, Lewes, have been submitted to the LEWES T.C.

At a recent meeting of the Uckfield R.D.C. it was decided to erect eight houses at MAYFIELD.

Plans passed by the WINCHESTER T.C.: Additional classrooms, Peter Symonds' School; garage, "Stanton," St. Cross Road; garage at St. Michael's Rectory, Culver Road; alterations to shop front, 2 Southgate Street; alterations to domestic offices, 12 Kingsgate Street; additions to "Halfway," Sleepers Hill; dwelling-house in Chilbolton Avenue; alterations to premises, 10 Jewry Street; alterations and additions, 11 Parchment Street; alterations to No. 4 Ranelagh Road; garages, Edgar Road, "Camden," St. Cross Road, and Fordington Road.

SOUTH-WESTERN COUNTIES

Eighteen houses are in course of erection at BISHOPSNYMPTON, NORTH MOLTON, and RACKENFORD.

When the appeal for funds for the restoration of BRISTOL Cathedral is issued by the Chapter, a sum of at least £30,000 will be asked for.

At a recent meeting of the DEVIZES R.D.C. tenders were accepted for the erection of five pairs of new houses in the parishes of Beechingstoke, Bromham, and Patney.

The LYMPSTONE Parish Council is to carry out a water scheme at a cost of £10,000.

MIDLAND COUNTIES

The BEDWORTH U.D.C. has decided to defer the question of erecting new council offices.

Messrs. Lewis, store proprietors, are to erect a new store in Bull Street, BIRMINGHAM, facing their existing premises, at a cost of £350,000.

NORTHERN COUNTIES

A layout plan providing for the erection of 130 non-parlour-type houses has been approved by the Housing and Town Planning Committee of the BLYTH Council.

Work has started on the construction of a new cinema for Sidney Bacon's Pictures, Ltd., on a site adjoining the General Post Office, Warwick Road, CARLISLE. The architects are Messrs. Percy L. Browne and Son.

The CARLISLE City Council has accepted a tender of £52,854 for the widening of the River Eden bridge.

The Building, Highway and Sanitary Committee of the Clayton-le-Moors District Council recommended, and the Council approved, the plan submitted on behalf of Messrs. Jas. Broadley, Ltd., for the proposed extension of their works in William Street, CLAYTON-LE-MOORS.

Plans for the erection of 123 new houses and bungalows have been approved by the FYLDE R.D.C.

At a meeting of the GOOLE U.D.C. a resolution recommending the Council to erect a further fifty houses in Goole and twenty-five in Old Goole was carried.

Messrs. Lewis, store proprietors, are to erect a new store in the Headrow, LEEDS, at a cost of £750,000.

The NEWCASTLE Corporation has received the sanction of the Ministry of Health for the construction of swimming baths at Byker, Scotswood, Fenham, and Jesmond, at a total estimated cost of £60,000.

A start is to be made as soon as possible by the NEWCASTLE Corporation with the erection of 177 three- and four-room houses on the St. Anthony's estate, being part of the city's housing programme of 3,000 houses, costing nearly £3,500,000.

A scheme is afoot for the rebuilding of the premises of the Poor Children's Holiday Association in Percy Street, NEWCASTLE, at an estimated cost of £20,000.

The construction of a tunnel at an estimated cost of £1,300,000, is recommended by expert engineers for the linking up of NORTH and SOUTH SHIELDS. It has been suggested that a proposal for the erection of a bridge which would cost £1,000,000 more, should be abandoned.

At a meeting of the General Committee of the SCARBOROUGH Town Council the extension of the Town Hall was approved, subject to a grant being obtained from the Unemployment Grants Committee to proceed with a section of the scheme, estimated to cost £19,000.

The SOUTHPORT Works Committee has prepared a scheme, costing approximately £40,000, for improvements to its promenade. The first part of the scheme comprises the erection of a floral hall to seat 1,700 people and the remodelling of the gardens; the other part of the scheme is to erect an ornamental footbridge across the marine lake, with improvements to footpaths, and the erection of a colonnade, shelter, and bandstand.

The question of extending the public library and museum has again arisen in SUNDERLAND. A scheme now being considered provides for the removal of the Winter Gardens from the museum site to the other side of the Mowbray Park lake and for the use of the present site for extensions to the main building.

The WEST HARTLEPOOL T.C. has decided to put in operation a scheme for improving a portion of the front at Seaton Carew, at a cost of £22,280.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_1	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_1	Atherstone	Mid. Counties	1 5½	1 1
B_3	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_3	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_3	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_3	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_1	Crewe ..	N.W. Counties	1 6	1 1½
A_1	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EAST-BOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend ..	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
H	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given

The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour ;* NAVVY, 1*s.* 3½*d. per hour ;* TIMBERMAN, 1*s.* 5*d. per hour ;* SCAFFOLDER, 1*s.* 4½*d. per hour ;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day :

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1*s.* 3½*d. per hour ;* TIMBERMAN, 1*s.* 5*d. per hour ;* BRICKLAYER, 1*s.* 8½*d. per hour ;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see " Excavator " above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see " Excavator " above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1*s.* 8½*d. per hour ;* DO. *fixer,* 1*s.* 9½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone :			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see " Excavator," etc., above.			
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour ;* TILER, 1*s.* 8½*d. per hour ;* SCAFFOLDER, 1*s.* 4½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200 :						
Portmadoc Ladies				£14	0	0
Countess				23	0	0
Duchess				32	10	0
Old Delabole	*Med.*	*Grey*		*Med.*	*Green*	
24 in. × 12 in.	£42	11	3	£45	1	0
20 in. × 10 in.	31	4	3	33	0	6
16 in. × 10 in.	20	18	0	22	4	9
14 in. × 8 in.	12	1	0	12	16	3
Green Randoms, per ton				8	3	9
Grey-green do., per ton				7	3	9
Green peggies, 12 in. to 8 in. long, per ton				5	13	9
In 4-ton truck loads, delivered Nine Elms station.						
Clips, lead, per lb.				£0	0	6
Clips, copper, per lb.				0	2	0
Nails, compo, per cwt.				1	6	0
Nails, copper, per lb.				0	2	2
Cement and sand, see " Excavator," etc., above.						
Hand-made tiles, per M.				£5	18	0
Machine-made tiles, per M.				5	8	0
Westmorland slates, large, per ton				9	0	0
DO. *Peggies, per ton*				7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal :

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med.	Grey		Med.	Green	
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6
DO., machine-made do., per square 3 7 6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See " Sundries " for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour ;* JOINER, 1*s.* 8½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds) :			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-EDGED springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ¾ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour ;* MATE, *do.*, 1*s.* 3½*d. per hour ;* ERECTOR, 1*s.* 8½*d. per hour ;* FITTER, 1*s.* 8½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour ;* MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	13	0
DO. *drawn pipes, per cwt.*	1	13	6
DO. *soil pipe, per cwt.*	1	16	6
DO. *scrap, per cwt.*	1	1	6
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	2
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	4
DO. 1¼ in., per ft.	0	4	5
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 *oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. ¼ *in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.

LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0

Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* FRENCH POLISHER, 1*s.* 8½*d. per hour* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall..	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	10½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1	6	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1	0	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



NICHE AND POOL ON ROOF GARDEN, KINGSLEY HALL, BOW, E.

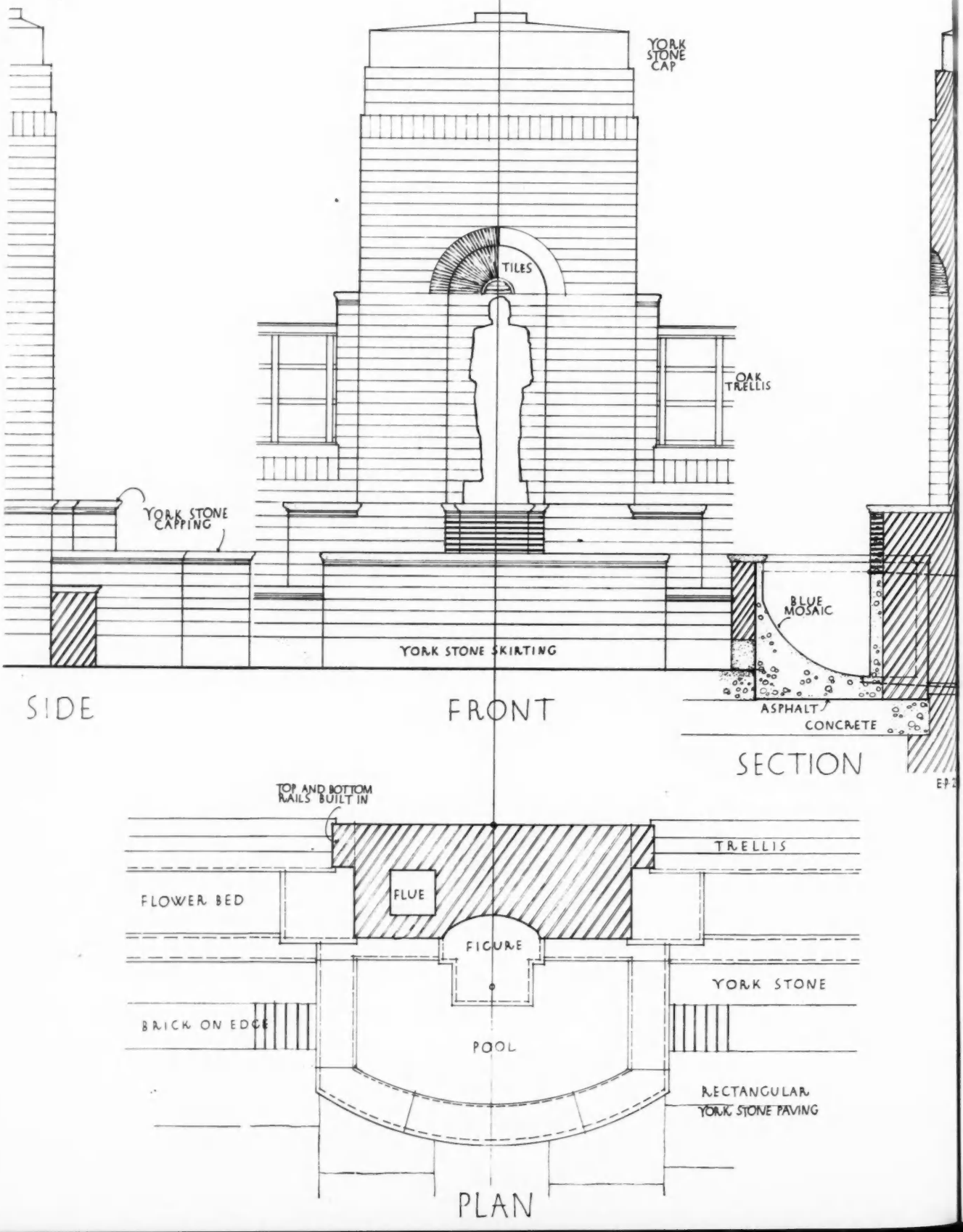
Designed by C. COWLES-VOYSEY

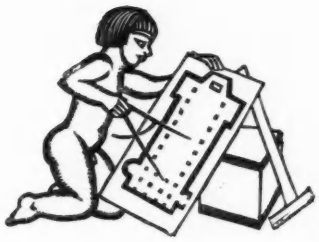
WHEN the flat of a building is intended for use as a roof garden, the treatment of chimney-stacks demands particular attention. In the photograph above is shown one of the chimneys at Kingsley Hall, which has been successfully used as the foundation for an interesting composition of niche with terra-cotta figure, and pool below.

The pool itself is formed of concrete, lined with blue mosaic and encased in brickwork, with a complete tank of asphalt between the concrete and the brick, to ensure water-tightness. It is flanked by flower-beds, contained behind dwarf walls coped with York stone, which divide them from the irregular random York stone paving of the remainder of the roof.

The drawings overleaf may be read with a scale of ½ in. = 1 ft.

KINGSLEY HALL: BOW
POOL & NICHE ON ROOF GARDEN
HALF INCH SCALE
C. COWLES-VOYSEY, ARCHITECT





WEDNESDAY, OCTOBER 22, 1930

A FORM OF SLOW DEATH

" Think of some workless man stepping from the street down dark, evil stairs into . . ."

THERE are many things which it is necessary to our way of living that we should remember only at intervals. One of these things is the fact of poverty, the very thought of which, prolonged beyond a moment's contemplation, cancels out the seeming good of all the possessions of body and mind by which we are given to set great store.

We know that poverty exists. Around us over square miles of this London we know that millions are living a life of perpetually hard struggle, and that many thousands barely survive the extremity of their misfortune; yet we are so made that we can only live one life, into which flows so much the greater balance of our emotions that little is left for objects which are not our immediate concern.

It is a law of existence and not a new callousness that makes men go about their business as though, if they stopped for an instant or looked about them at the plight of their fellow-creatures, they would be snatched away from the paths which industry has worn smooth for them.

Yet there come moments when some ugly fact stands in the way, and makes chaos of nice order; as now, when we might have thought with pleasure of the bettering conditions of the housing of London's poor, comes the report of the Medical Officer of Health for the L.C.C. with a statement of conditions too appalling to think of with equanimity.

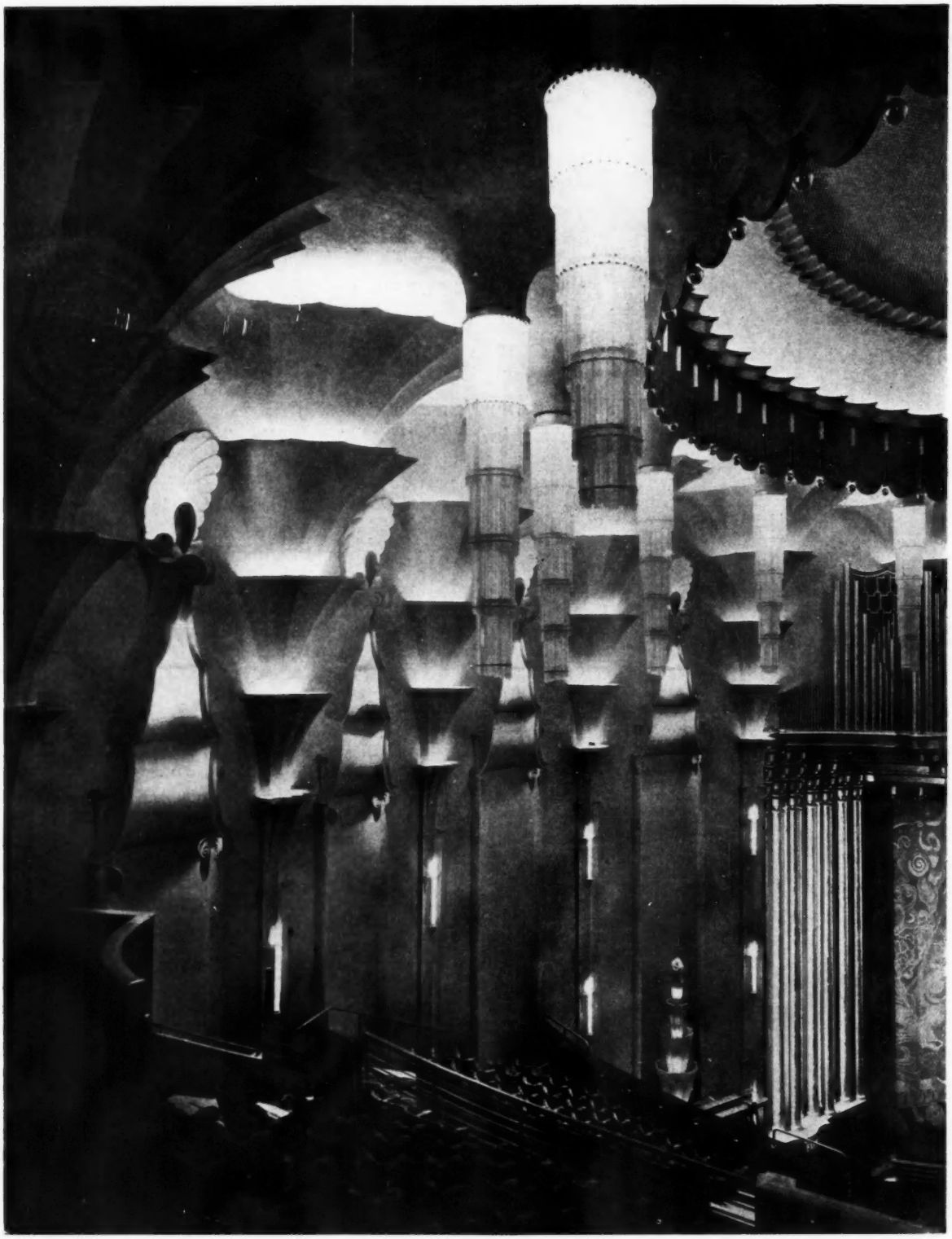
There are about 30,000 basement dwellings in London, all of which are considered unfit for human occupation. These are not all separately occupied, for more than 100,000 people live in them under varying degrees of congestion. " The most insanitary areas do not, and have never," according to the report, " provided such intense degrees of insanitariness as are to be found in the case of these underground rooms. On a moderate computation not more than a fourth of the living-rooms in an insanitary area are so grossly insanitary as the worst type of basement dwelling . . . and if this worst type is selected for clearance, 100 per cent. of utterly insanitary rooms, quite unfit for human habitation, will, in consequence, pass out of use. . . . Never is this so in improvement schemes under which insanitary areas are cleared."

It is obvious to architects if not to anyone else that a basement presents the worst conditions for human occupation. The direct contact with earth on the floors, if not the walls, ensures a perpetual state of dampness which no amount of fresh moving air would entirely remove, if it were indeed possible to bring to the areas and dank pits, through which these rooms receive their light, sufficient quantities of air for even ordinary uses. The normal conditions of basements are therefore heavily loaded against health and sanitation; they are the very atmosphere of rheumatism, tuberculosis and rickets.

If it would be difficult under normal conditions to live there healthily, how much less possible is it, when to these are added poverty, overcrowding, and dirt; misery and no hope of anything better. Imagine for a moment what is represented by these things. Think of some workless man stepping from the street down dark, evil stairs into . . . One cries for a Dickens to put it before the world. For there is no law against basement habitation. All over London people live in basements: decent people, people who have money to enable them to be orderly and clean. It is only when acute poverty drives the lowest into the worst holes and corners, forsaken by everyone with the smallest chances of escape, that the basement becomes a form of slow death.

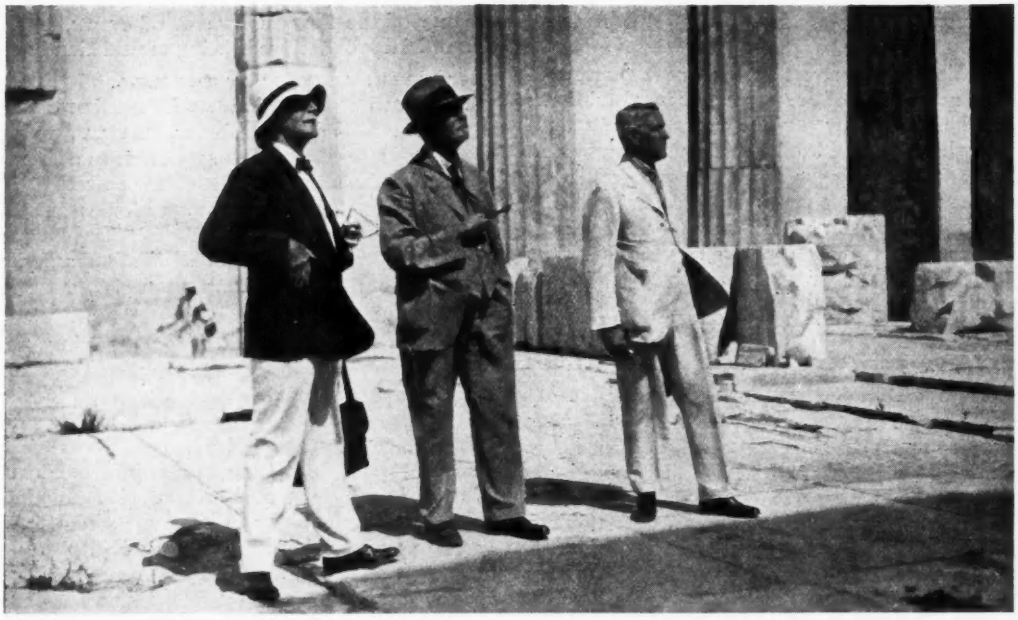
Here then is a new aspect of slum clearance hitherto unsuspected. We know from the medical officer's report that most slum clearances leave the worst form of slum nearly untouched. What is its incidence in slum property? Where may it be attacked at its worst? And how may it be made possible for the new Act to be applied to the removal of this worst remaining blot?

These are questions to which, once they have arisen, we must find answers—as substantial as those by means of which London has removed the stigma of owning the worst slums in Christendom.



STALACTITIC LIGHTING AT A LONDON CINEMA

A photographic study of the interior decoration of the New Victoria Theatre, opened on Wednesday last by Mr. George Arliss, the film star. The decoration belongs to no "period" or "style." It creates the atmosphere of a fairy palace under the sea, illuminated by mysterious lights: a fantastic home for "make believe" and play. The theatre has been designed by Messrs. W. E. Trent and E. Wamsley Lewis. *See also pages 611–615.*



Distinguished visitors inspect the Acropolis, Athens, during a recent R.M.S.P. Mediterranean cruise : Sir William Llewellyn, K.C.V.O., P.R.A. ; Sir Reginald Blomfield, R.A., PP.R.I.B.A., and the Rt. Hon. Sir Leslie Scott, P.C., K.C.

NEWS & TOPICS

THE STEEL QUESTION

ELSEWHERE in this issue a more detailed account is given than I could hope to give here of a momentous conference, held in London last week, with stresses in steel as its main subject. It seems to deserve the adjective because it marks a definite step forward in the direction of bringing our antiquated building regulations into step with some of mankind's recent ingenuities. Readers of THE ARCHITECTS' JOURNAL will not need to be reminded that the old yoke, fashioned centuries ago, during the undisputed reign of stone, brick and wood, has been found to chafe severely of late. Steel has arrived; we all use it; yet we are hindered from full exploitation of its economical possibilities.

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Steel really *is* a recent ingenuity of mankind, but it has been in manufacture long enough to have undergone various processes of perfection : the metal we can obtain today is very different from that of fifteen or twenty years ago. It was one of the materials upon which a state of war focussed the activities of many able brains. But, perhaps for the very reason that its characteristics have been changing comparatively rapidly, research into such of its properties as are of interest to all engaged in building —chiefly resistance to stresses and strains—has hitherto been of a somewhat fragmentary order. Meanwhile, what we have been working to, as was said at the conference, might be termed not so truly factors of safety as factors of ignorance.

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This freely admitted, it was an obvious recommendation that research should be undertaken to fill in the gaps that exist in our scientific knowledge, and to co-ordinate the results with what is already known. But research is so much overdue that it was decided to push forward with the publication of an interim report on which some reasonable code of building regulations could be based at an early date. It was suggested that this should be framed in such a way as to admit of interpolation and amendment as and when the results of expert investigation become available. There will, of course, be other voices to be heard when revision of the building laws comes to be tackled in earnest, but it is something to know that their anatomy, in a very literal sense, is now under expert scrutiny.

BUILDING TRADE OPERATIVES DISCUSS AMALGAMATION

This is an age of amalgamation of interests. Last week the building trade unions met in special conference at Chester and discussed a merger between some fifteen unions affiliated to the National Federation of Building Trades Operatives. Twelve of them decided to ballot their members on the question of amalgamation, and the voting is expected to take place early next summer. Thus may come into being a great " Operative Builders' Union " or " Building Workers' Union," with a membership of a quarter of a million. One effect would be a reduction in the executive from 140 members to 20—a centralization of power indeed. Seeing that things are as they are, this may be no bad thing for the men themselves, and may simplify the complications that many have found a bar in the past in establishing those good relations upon which we all alike depend.

THE ACHIEVEMENT OF KINGSWAY

We celebrated last week the twenty-fifth anniversary of the opening of Kingsway, the most ambitious of London improvements since the construction of the embankments. Everyone knows what an unsavoury and crowded district was swept away to make this fine street. I have even met those who regretted the passing of a London which, even

if it was a cesspool in fact, looked rather interestingly crooked to the romantically-minded.

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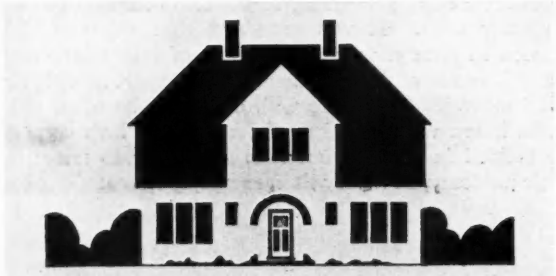
The construction of the street cost about a quarter of a million : the acquisition of the property cost 4½ millions; and now at the end of twenty-five years I understand that everything has been paid off. Taking the war period into account, and allowing for the effects of a policy of loading the heavy interest charges on to the purchasers from the very beginning, this is a remarkably short period, and goes to prove that finely conceived works of public improvement, carried out over poor property, are not only self-balancing but can be made to show a profit.

THE SCOTTISH CHALLENGE TO OFFICIAL ARCHITECTURE

The Office of Works make poor progress with their plans for Government buildings on the Calton Jail site at Edinburgh. The Edinburgh Town Council did, indeed, accept one plan submitted to them, but since they required alterations to be made the new plan had to be again submitted to the Scottish Fine Art Commission, who have now, it appears, rejected them in greater part. Thus a second deadlock is reached, and it may happen that the Government may withdraw from the site altogether.

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Without the necessity of taking sides in the matter, it seems obvious that local and Scottish national feelings have been offended in the first case by an act of bureaucratic high-handedness, which later stubbornness on the part of the Government has only served to stiffen into absolute opposition.



OUR 1931 SELECTION OF

FIFTY DIFFERENT HOUSE DESIGNS

Selection No.		
22.	50 plans on blue print paper -	17s. 6d.
23.	50 plans on white paper - -	27s. 6d.
24.	50 plans on white paper and coloured	50s. 0d.

This selection contains 50 designs of 2-bedroom to 6-bedroom houses and bungalows. All plans on separate sheets. Scale: Eight feet to an inch. The above selection can also be obtained in two loose-leaf books at 15s. per selection extra.

OUR SELECTION OF

TWENTY-FIVE DIFFERENT SHOP DESIGNS

Selection No.		
19.	25 plans on blue print paper -	15s. 6d.
20.	25 plans on white paper - -	25s. 0d.
21.	25 plans on white paper and coloured	50s. 0d.

This selection contains 25 designs of shops suitable for town and country.

THE [redacted] TRACING AND PLANNING CO.

Flat burglary, or Penny Plain and Twopence Coloured. A reproduction of a leaflet that some of our readers may recognize as having reached them through the post : we hope none of their designs have been "traced" for this "1931 selection."

This warfare has drifted a little out of the public eye because of the slow movement of events, but it is here that official architecture is being most defiantly challenged.

FIRST WOMAN ASSISTANT AT THE R.C.A.

The Board of Education has for the first time appointed a woman, Miss M. S. Taylor, A.R.C.A., to the School of Architecture, Royal College of Art, as assistant. About a tenth of the number of students at recognized schools are women, so that their recognition is at least timely; and, my recollection of the College of Art being an absolute dream of wonderful and remarkable femininity, one might even presume the appointment tardy.

SURSUM CORDA

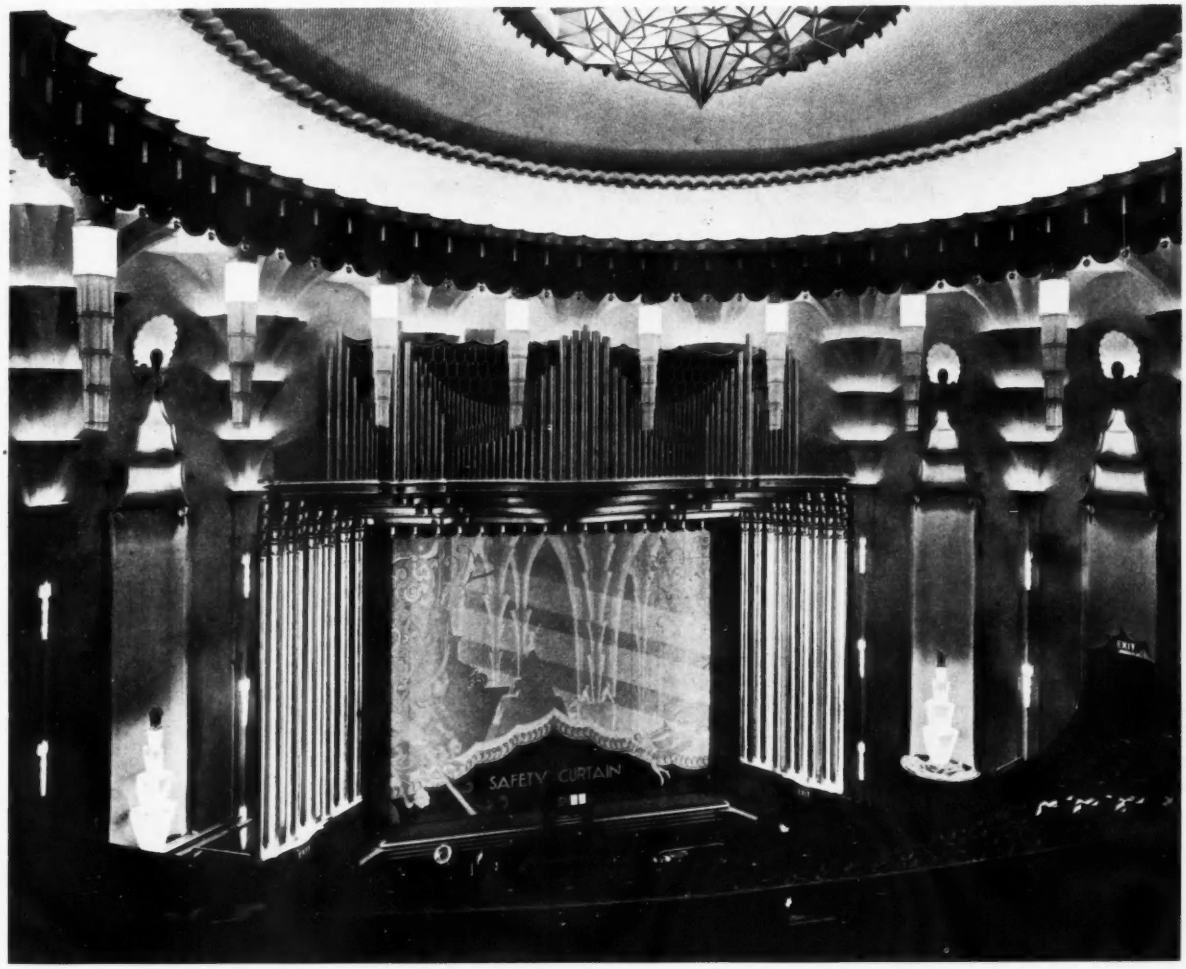
Even the Church is tacitly recognizing the modern appreciation of colour. In my comings and goings I recently entered one of London's lesser-known cathedrals —Southwark—and was spell-bound by the effect of the carved stone screen behind the altar, now entirely covered with dull gold, from floor to a height of about ten feet, with a few spots picked out in rich colours. This is splendid, without being in the least garish. And, a day or two ago, knowing the lantern of St. Paul's Cathedral was to be the subject of English Precedent in this issue, I glanced at it with new interest. It was a sunny morning and the eye was gladdened with the gilding of this lantern and the terminals of the two towers, glistening against the blue October sky.

DONKEY-TRICKS IN AUSTRIA

In Vienna there practises an architect who probably interpolates an unprintable adjective when reciting to himself, "the Law is a hass," and who must have realized by this time that the Press is another species of animal that it is ill to clap in blinkers. In the riots of three years ago the roof and top-story of the Viennese Palace of Justice were burnt; Heinrich Reid has rebuilt them; and the papers did not view the result kindly. One of them, musing upon the yellow colour of the new additions, used a freezing simile about ice-cream; nor could it understand why the floor should have "nymphs and dolphins" by way of ornamentation. (Evidently, Heinrich has always had his opinion of the Law; but a Palace of Justice is not, after all, the most auspicious place in the world to air it.) But the Law thought no harm—at first. Under the new Press law it inflicted a fine of 500 schillings (£15) upon the paper, at the instance of the disgruntled architect.

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Even in Austria, however, despite the hassinine Law, there is what looks curiously like "the freedom of the Press" with which we are blessed in England. The paper made no bones about publishing the sentence against itself, but added the manifesto : "The Palace of Justice from today is the finest building in the world. Whoever differs from that opinion is fined 500 schillings"; and proceeded to appeal. (Well it knew that the Law is a hass.) And won, with costs against the plaintiff. What I want to know now is : Does the reversed decision mean that the Law resents having been baited in its own Palace of Justice; or deems Heinrich no better than a hass himself; or holds the paper, though wrong by law, to have been really right; or acknowledges and bewails its own hassininity; or—but this is all hay and hee-haws. . . . The serious thing for Heinrich is that what was merely an opinion in ink on paper has, by legal operation, been more or less carved in stone for all to see for all time. ASTRAGAL



The auditorium is made to resemble "a fairy palace under the sea." The dome above the circle is in the form of a gigantic shell; the walls give the impression of being cut away from coral and rock. Decorative features include undersea growths, stalactites, two alabaster fountains, one on either side of the proscenium, and chairs and carpets giving in design and in colour the effect of waves.

THE NEW VICTORIA THEATRE

"A Fairy Palace under the Sea"

W. E. TRENT AND E. WAMSLEY LEWIS, ASSOCIATED ARCHITECTS

PERHAPS no building in London has provoked so much criticism, favourable and otherwise, as the New Victoria Cinema Theatre which opened its doors to the public on Wednesday last. The building stands in a popular shopping district in the immediate vicinity to Victoria Station, with long frontages to two streets, crowded daily with shoppers and with travellers to and from the suburbs, the South Coast and the Continent. It is not surprising, therefore, that since the building first began to take shape much comment has taken place concerning its unorthodox appearance and its unusual constructional features.

In planning the theatre the architects encountered considerable difficulties owing to the perfect rectangular shape of the site. It was essential to provide the theatre with as many seats as possible and at the same time to leave ample space for entrances, exits, stairs, rest-rooms, etc. To attain this object the whole of the stalls floor has been placed below street level, and the entrance hall arranged in the depth of the balcony. At the stage end the floor of the stalls is 22 ft. below street level, and the side gangways are actually under the pavement in Wilton Road and Vauxhall Bridge Road. Above the stalls there is a large single balcony. It extends the full width of the theatre, and is about 90 ft. deep from back to front. This balcony seats 1,100 persons, and with the stalls provides a total seating accommodation of three thousand.

Having sunk the stalls beneath the street level it was necessary to provide heavy concrete retaining walls varying from three to seven feet in thickness on both sides of them. At the stage end the adjoining building, a big drapery store, erected on four great stanchions loaded up to about three hundred tons, had to be underpinned as the cinema excavations went down 10 ft. lower. The entrance floor hall is suspended from the girders carrying the balcony. There are two main balcony girders, one weighing 93 tons, the other 70 tons, and each 101 ft. long. The smaller of these was brought by rail to London from the North of



The Vauxhall Bridge Road front. On both façades the architects have adopted a treatment of horizontal bands, with deep shadows, as a means to express life and movement, the attributes of the film.

Over the entrance from Wilton Road, as over that from Vauxhall Bridge Road, the vertical lines are designed to stop the passer-by in the street and bid him enter. Entertainment is suggested by gaily coloured canopies.

New Victoria Theatre, London.]

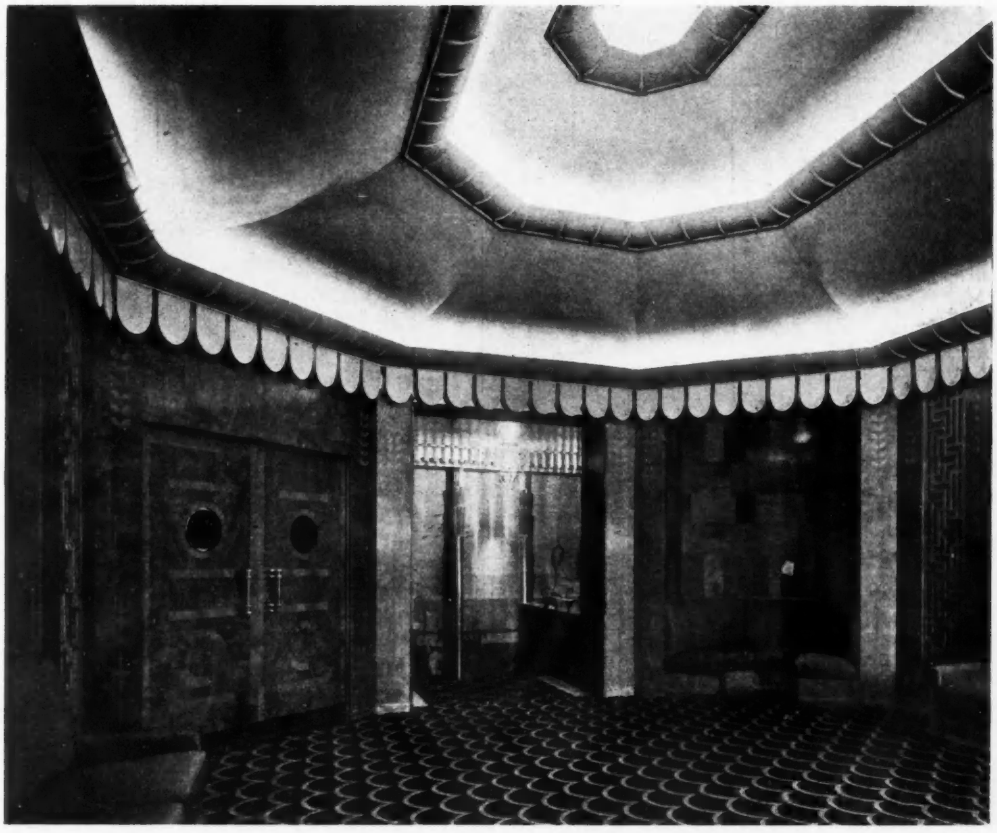
England in one piece, taken through the streets in one piece to the site, and lifted straight into position. It is said that this is the biggest girder ever handled in this way. The whole building is a steel-framed structure, and the total weight of the steel involved is upwards of 1,600 tons. All the stanchions rest on large steel grillages, filled in solid with concrete.

As in two cases the point loads reach nearly nine hundred tons, very heavy foundations have been rendered necessary.

Owing to the restricted nature of the site the whole of the drainage is within the building and in many cases the suspended floors and drains have been constructed together. All the sewage is lifted by a pump to the level of the sewer in the street. For the same reason, that of a restricted site, the boiler house and the heating and ventilating plant are placed in the roof, where are also the projection rooms, electrical workshops, etc. Air is drawn in and, after being filtered, washed and warmed, is forced into the auditorium from the ceiling downwards and extracted under the seats.

The height from the floor under the stage to the roof of the stage is 94 ft. Over the centre of the auditorium is a dome 65 ft. in diameter, the steel ribs

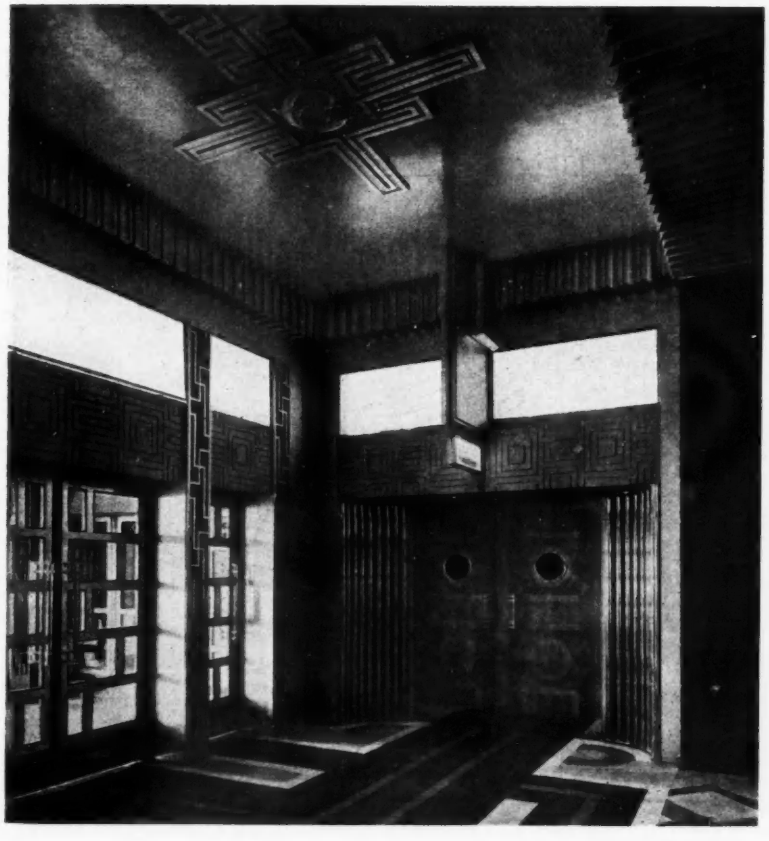




A corner of the foyer on the first floor. The other end is similar in architectural treatment. The doors shown give access to the circle, and the staircase leads to the main foyer on the floor below.

The main foyer showing, on the left, the entrance doors from Vauxhall Bridge Road and, to the right, the doors leading to the circle. A photograph of the staircase on the opposite side of the foyer appears on page 615.

[*W. E. Trent and E. Wamsley Lewis, associated architects.*

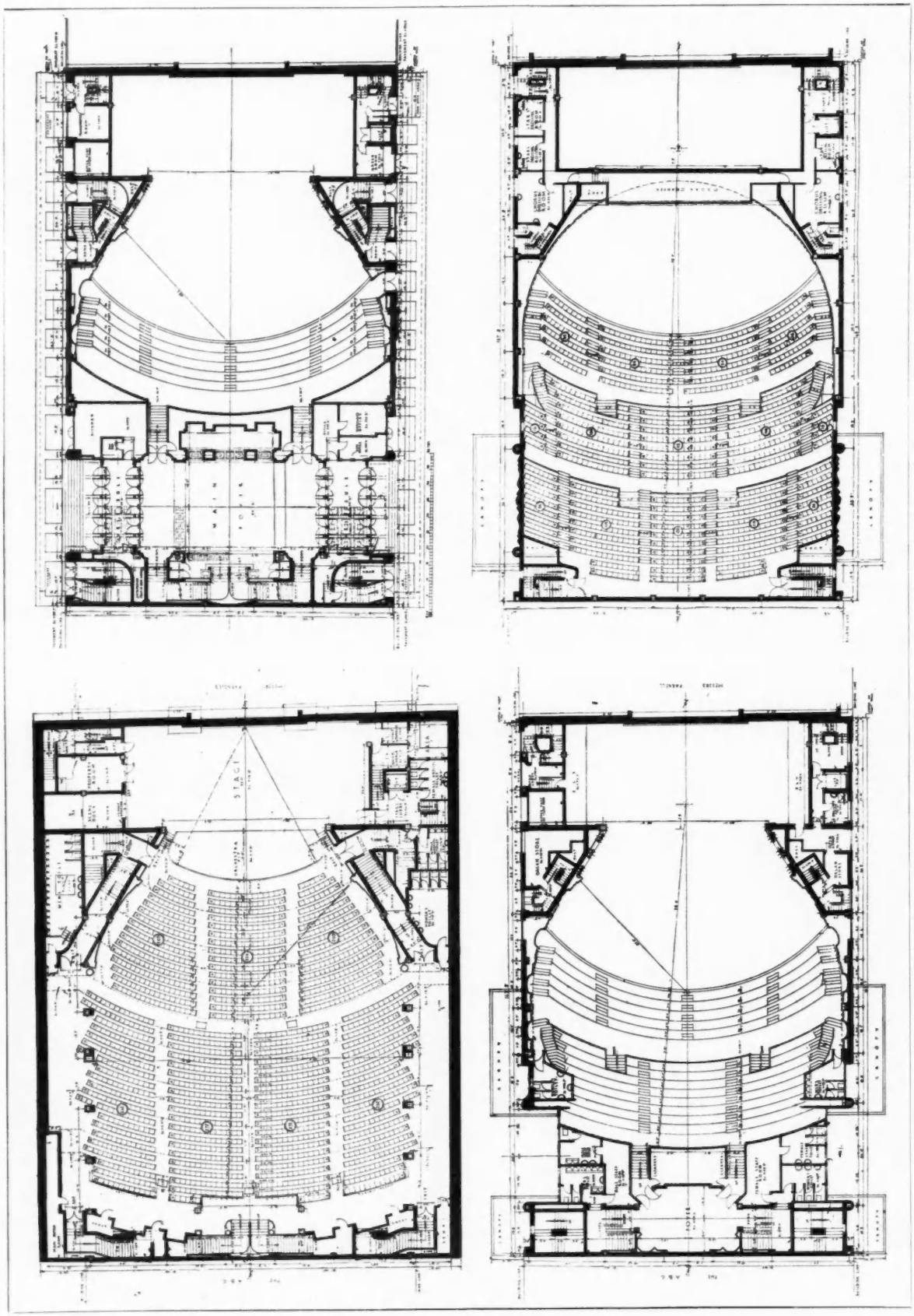


being filled in with concrete. The eye of this dome, 20 ft. in diameter, is glazed to admit such daylight and sunlight as is required by the London County Council during the day. At other times a steel rolling shutter excludes daylight.

The striking and mysterious lighting effects of Mr. E. G. Nichols, chief engineer of the cinema company, and his assistants, Mr. Humphrey and Mr. Cucksey, contribute enormously to the success of the architects' conception. Among the effects obtainable are those of clouds, fire and snow.

The latest type of mercury-vapour rectifier is installed to give "short-circuit proof" d.c. supply for the projectors and the organ.

In carrying out the deep excavations an interesting piece of Old London was discovered. At a depth of about 14 ft. and running diagonally from end to end of the site a line of old mooring posts and the camp-sheeting of an old wharf were uncovered. On one side of the posts was a layer of black river mud, showing that in earlier days a water-way (probably an arm of the Thames) extended to this point, and that barges came up to discharge their cargoes here. To present-day Londoners the idea of a wharf at Victoria may sound incongruous, but here was obvious proof that it once existed.



Plans of the stalls, ground floor, upper foyer and balcony floor. The frontage line to Vauxhall Bridge Road is at the top of each plan, and that to Wilton Road is at the bottom. Seating accommodation is provided for 1,710 persons in the stalls and 1,076 in the balcony. The whole of the stalls floor is below street level. The site is 168 ft. long by 104 ft. wide.

Vauxhall Bridge Road is at the top of each plan, and that to Wilton Road is at the bottom.



New Victoria Theatre, London. [*W. E. Trent and E. Wamsley Lewis, associated architects.*

The main foyer, showing staircase leading to upper foyer. On the left are the entrance doors from Wilton Road. On either side of the staircase are flights leading down to the stalls.

TWO HOUSES IN LEICESTERSHIRE

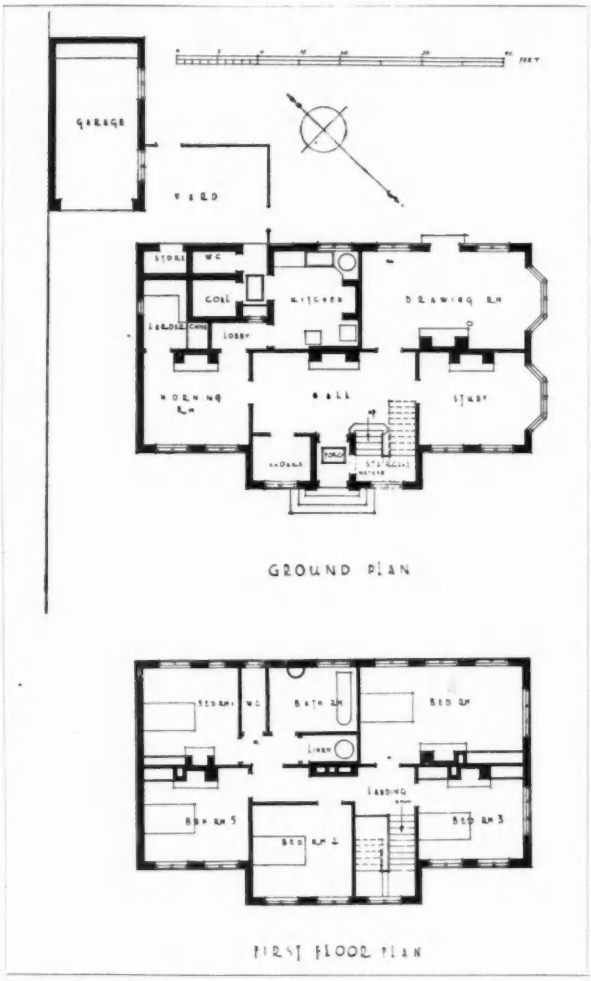
DESIGNED BY E. J. WILLIAMS



Bardon House: the entrance front, showing the long eight-light window overlooking the staircase.

ON this and the following two pages are illustrated two houses which have been erected on the outskirts of Leicester—Bardon House on the Lutterworth Road, and Stepaside in the Fairway, Oadby.

Bardon House occupies a site on the main road from Leicester to Lutterworth and overlooks the valley of the River Soar. The external walls are of hollow brick with brick piers and have rough cast panels between the first-floor windows. At the base of the walls is a blue brick plinth. The roof is covered with rough blue slates. The main entrance has an artificial stone surround, and leads through a small porch into the central hall, from which direct access is obtained to the principal rooms on the ground floor. To the left is the morning-room, and to the right are the drawing-room and the study. Behind the morning-room and approached by a lobby are the kitchen quarters. The staircase, leading to the first floor, is punctuated on the entrance front by a long window, reaching from about 7 feet above ground-floor level to the roof. This staircase leads on the upper floor to a central landing, around which five bedrooms, bathroom, w.c. and linen cupboard are planned. On the left side and at the rear of the house a garage has been provided within easy access of the main road.



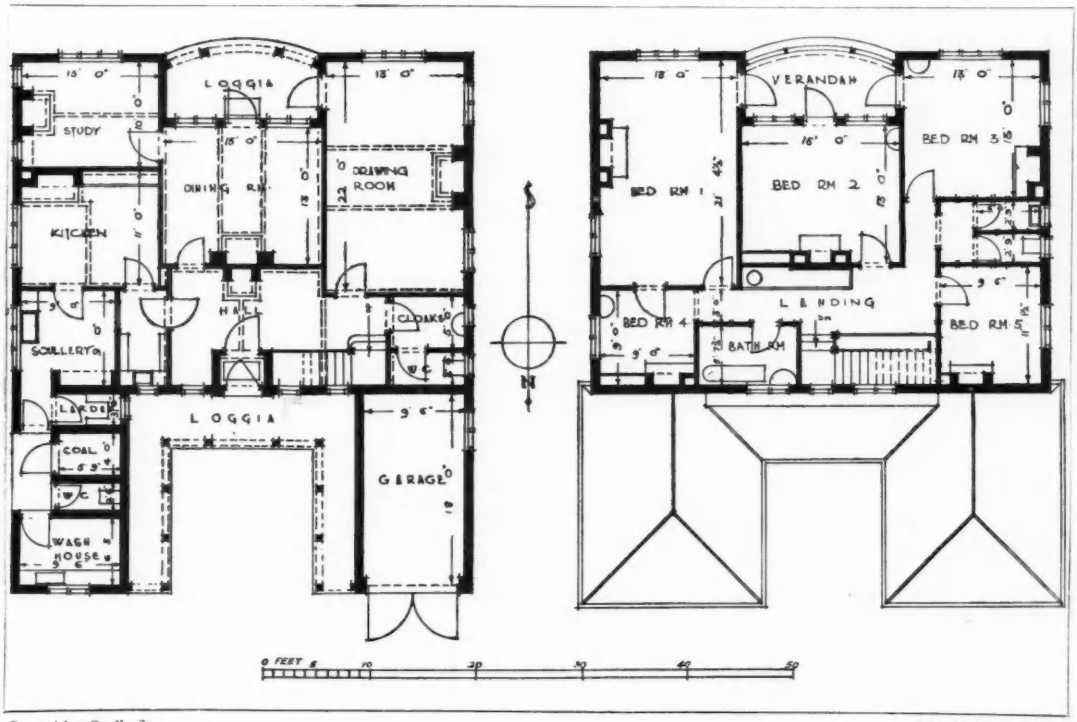
Bardon House, Leicester.
Ground- and first-floor plans.

The other house, Stepaside, has two loggias, one on the entrance front and the other on the garden side. In addition there is a veranda overlooking the garden from the first floor. Entrance to the house is obtained through a loggia, which is flanked on one side by the washhouse and coals and on the other by the garage. In this house also a central hall has been planned. Leading off from this to the right is the drawing-room, and to the left the dining-room and the kitchen. On the south or garden side is a study approached from the dining-room. The loggia on this front, together with the balcony over it, has been planned and designed as the central feature of the elevation to the garden. On the first floor are five bedrooms, three of which have access to the veranda, and a bathroom, etc. The main walls are of brick and are 9 ins. thick. The elevations are treated with cement stucco, washed, and have a blue brick base. The roof is covered with pantiles.

It will be observed from a study of the accompanying plans that both houses have been designed to give the principal rooms a southerly aspect.



Stepaside, Oadby: the garden side. This house has been erected on the recently-developed Stoughton Manor estate, Oadby, some three or four miles from the city of Leicester. The main feature of this southern front is the loggia, with veranda above, to which three bedrooms have direct access.



Stepaside, Oadby.] [*By E. J. Williams.*

Ground- and first-floor plans. There are two loggias, one of which shelters the main entrance, which is thus approached across a small forecourt.



The drawing-room is the largest apartment on the ground floor of Stepaside. The window on the left-hand side overlooks the garden. Facing the right-hand window is a door to the loggia.



Stepaside, Oadby.] [*By E. J. Williams.*

The brick fireplace in the dining-room; on the right of it is the entrance from the central hall. The dining- and drawing-rooms have direct access to the loggia on the garden side.



ENGLISH PRECEDENT No. 138

THE LANTERN, ST. PAUL'S CATHEDRAL

The tall spire-like cupola which crowns its dome is one of the most characteristic things about a distant view of St. Paul's. It would have been still more conspicuous if Wren had followed his earlier plans. The schemes he got out before the fire show a spire considerably taller than the one that was built. The history of the ensuing designs is a pretty puzzle indeed.

In the so-called Model Design the cupola shrinks to a close imitation of that of St. Peter's, while in the Warrant Design it is magnified to challenge the dome itself. The final drawings prepared during the building of the cathedral differ from the executed design only in that the upper half is less by comparison with the lower. Both in the St. Paul's drawings and in those at All Souls the attic story is shallower and the domed roof flatter.

Here is another proof of the extent to which Wren designed his buildings "on the job," where the perspective of the parts could be tested with certainty.

LETTERS FROM READERS

Official Architecture

SIR,—The incursion of a business man into the correspondence upon official architecture is welcome because it reveals the mind of the commercial element of the patrons of our profession, focussed in the idea that £500 a year is an adequate salary for an architect who carries out £100,000 worth of work annually.

If we may assume that this is typical of the business mentality and morality and that it is based upon fact, it is to be devoutly hoped that the day is not far distant when the R.I.B.A. will take such steps as may be necessary to ensure through the medium of its Members who function in official capacities, that the profession is adequately remunerated, and, having done so, will see to it that none of its members ever lend themselves to this species of exploitation of our profession on penalty of the forfeiture of their Membership.

Any commercial concern which cannot, upon economic grounds, remunerate an official architect in a more equitable manner should be deliberately deprived of this source of professional service and thus be compelled to resort to the service of the private practitioner.

Our business man comes to the gist of the entire matter when he clearly states that business concerns employ official architects for economic reasons and not for the sole purpose of advancing the art of architecture. Though viewing the subject from an entirely different standpoint, I find myself in complete agreement with the business man upon this fundamental truth.

The assurance with which he essays to satisfy what he terms "Mr. Leathart's simple bewilderment," however, merely exemplifies how the uninitiated rush in where angels fear to tread. Here he is completely out of his element, for his conception of architecture as "titivating up a trifle with columns and what not" is merely an amusing exposition of an utter misconception.

A concentrated perusal of the opening speech in the debate at Olympia might possibly help him in this connection. Nevertheless, your architect readers should be indebted to the business man for his blunt, if naive, exposure of the economic aspect of official architecture.

R. WYNN OWEN

The above letter was unavoidably held over from our issue for Wednesday last. On Thursday we received the following :

SIR,—This afternoon I read Mr. Leathart's amusing letter, and by way of proving that the reply is spontaneous I enclose it herewith, couched in the form of expression which that gentleman flippantly suggested might be the manner in which we might hand our observations to each other.

I thoroughly enjoyed his letter, but I challenge him to write a reply in *verse* and have it in your hands through the post by the morning after the issue of THE ARCHITECTS' JOURNAL in which the enclosed appears, provided always you publish it, without showing it to him in advance.

OFFICIAL ARCHITECTURE

Dedicated to one J. R. Leathart, Esq., F.R.I.B.A., Architect and private practitioner

Verse hast thou chosen as the medium of a tilt?
Verse thou shalt have, then, though it cleave thee to the hilt.
As thou hast suggested, the Muse shall be our blade,
Until from sheer exhaustion our parrying be stayed.
That which thou beholdest, thou clearly canst not see;
Not e'en when 'tis plainly pointed out to thee.
Would that to Olympia thou hadst in person come,
And added there thy quota to the common sum.
There, chance, that clearer vision thou possibly hadst gained,
Which from subsequent vain babbling might have thee restrained.
For, know thee now, and be it e'er within thy ken,
There spoke I but of *works* and spoke not I of men.
Prating of men, Sir, is but old women's vogue;
And savours of the busybody, gossip, or the rogue.
Who wrought a work, I care not, provided 'tis not coarse.
Rotten work is rotten work regardless of its source,
While good work is the hall-mark of genius and of skill,
E'en though its author's hidden by accident or will.
Thinkst thou this hero-worship of the latest vogue bodes well
For the prestige of our calling?—It merely bodes its knell.
E'en now within the gutter our fair profession lies,
An object of contempt to the saner public's eyes.
Of unity or fellowship we verily have none,
Since no man's job is really his until that job is done.
For Architects, like vultures, lurk, morally defiant,
Waiting for the faintest chance to pinch a brother's client,
While the public note the posture and appraise it at its worth;
So in its eyes our profession merely grovels on the earth,
Self-degraded, belittled, and devoid of brotherhood.
A lesson from the Doctors or the Law would do us good.
When thou'st grasped, what to an Architect should be manifestly plain—
A Cathedral's not comparable with the place they start a train—
Thy vision will be clearer, and, emerging from the mists,
Thou mayst yet one day, efficient, ride gaily to the lists.
Judging from thy scribbling, insooth, a mummer thou shouldst be,
That thou'st ne'er yet found thy calling is obvious to see.
And now, Sir, if in verse, forsooth, thou canst not come again,
Then, for ever hold thy peace, and sheathe thy fountain pen.

R. WYNN OWEN

Fees—Fixed and Sliding

SIR,—Your leading article, "Fees—Fixed and Sliding," in the Oct. 8 issue of THE ARCHITECTS' JOURNAL, by offering only one adverse criticism against the R.I.B.A. revised Scale of Professional Charges, pays a great compliment to the Committee which has brought a long, tedious and arduous task to a successful issue. In such a lengthy and diverse document as the "Scale" one would not be surprised if your writer had discovered many contentious points, but the one which appears to perturb him is concerned with what is probably the least important item in the Scale, viz., the graduated fees for works costing £2,000 and under.

Whilst it is true that this graduated scale, as framed by the Committee, is not perfect, the proposals offered as an alternative do not carry us far along the road of "Arithmetic Made Easy." It is suggested that the 10 per cent. should commence "from the point where the cost of the job was zero." I have known architects' clients who might view this with suspicion—a potential attempt to charge 10 per cent. on something for doing nothing. In the examples cited with such inviting simplicity it is presumed that building costs work out conveniently in round figures—£100, £500 and so forth. Now, whilst I agree that architects might be tempted to adopt this method in order not to overtax their mental energy when calculating fees, it is customary to work on the actual costs as revealed by accounts. Thus, to calculate fees on a job costing, say, £373 19s. 11d. at 9·2 per cent., is not a great relief from the R.I.B.A. scale, and would not justify the Committee's suggestions being altered by the Council.

The graduated scale should, in my opinion, be taken as a guide, and I believe is generally used in that way. For those who desire an easy method of adapting the scale, a graph can be made, but even this is not strictly accurate. It might be possible to calculate by slide rule, but I have not heard of this having been attempted. If fees of precision *must* be adhered to, I can only suggest a gauge of the micrometer type, one of which, suitably inscribed, might also be presented, as a memento, to the client, thus enabling him to check his architect's account, and by reminding him of that gentleman's honest intentions, pave the way for future commissions above the £2,000 limit.

WILLIAM H. HAMLYN



Removing a house : preparing—

The Architects' Golden Opportunity

SIR,—In your leading article on "The Architects' Golden Opportunity," in your issue for October 1, you state that anywhere in England the growth of urbanism and large villages can be found, but only one town. To this one town you give the credit of being the first attempt to build to a definite plan, and state that Letchworth itself has no definite or cohesive plan.

Letchworth is the first attempt to build a town on a "definite cohesive plan." The late Sir Ebenezer Howard in 1903 formed First Garden City, Ltd., and Barry Parker and Raymond Unwin were the architects responsible for the layout and design. No material alteration has been made in that plan. Letchworth is a residential and industrial town, and the great work of building a new and complete town was recognized by H.R.H. the Duke of York, who became president of the twenty-first anniversary celebrations in 1926.

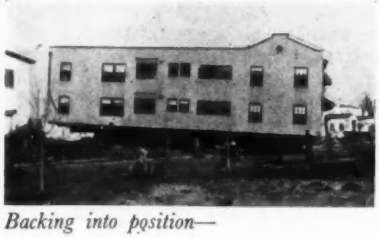
The fundamental principle of Letchworth is its completeness as a town and its distinction from a London suburb. On the industrial side there are over a hundred factories, with an industrial population of more than 4,000, the total population being about 16,000.

Its standard of open spaces is double the standard laid down as being necessary by the National Playing Fields Association, and the value of a healthy residential and industrial town is reflected in the infant mortality rate of 22·6 per 1,000, as against 65 per 1,000 for England and Wales last year.

A. T. PIKE
(FIRST GARDEN CITY, LTD.)

The Scarecrow of Industrialism

SIR, — The Dean of Manchester's demand for beauty in modern life (October 8 issue) is its own answer—in the sense that it expresses the realization today of existing ugliness and the remedy.

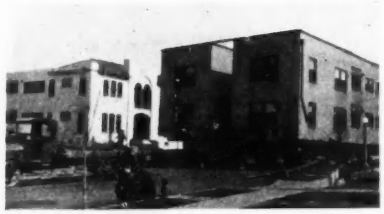


Backing into position—

A wave of indignation is spreading through England, which, within a few decades, may not only remove the pollutions of the past century, but create a wealth of new beautiful things. The arts of man will be used to enhance the best that Nature gives us. One has only to pause and consider the powerful and beneficial influences which are at work today, to be assured that within a generation a great change will certainly take place in the appearance of England. Even while bad taste and carelessness are still producing ugly things, the tendency is changing, and tendencies are everything. Public opinion is rapidly strengthening in the right direction.

In a few years many things which are tolerated, or even unnoticed today, will be deemed such bad form as to be impossible.

No one who attended the recent conference at Welwyn Garden City of the delegates of the constituent component bodies who form the C.P.R.E.



On the road—

can have failed to appreciate the powerful forces which have come into being since the war to make England beautiful. These forces will be irresistible. But the movement is not confined to any country or to any race. It is almost world-wide, in spite of many apparent contradictions. It is a movement as real and as vital as the Renaissance. It is noteworthy that the keynote of the C.P.R.E. Conference was not that of conservatism in the sense of indiscriminate preservation of the things of the past. It was essentially constructive and creative. Town planning, good design in new buildings, tree planting, landscape gardening, the encouragement of the sense of beauty in the coming generation, the discouragement of acts which offend the eye or destroy pleasure in landscape, the building of new and beautiful towns, the gradual amelioration of existing industrial towns, replanning them on broader and more beautiful lines. Practically every speaker who contributed to the debates showed a vision of what England might be made by positive action rather than by a policy of negation. There was no note of despondency in the face of the ugly things which were deprecated.



Preparing to move : side view—

The Dean's paper is full of a sense of certainty regarding the future. All that he says of the industrial towns of the future breathes the feeling of possible achievement rather than an unattainable utopia. It is this attitude of determination which will bring us the final victory over ugliness and squalor.

(SIR) THEODORE G. CHAMBERS

Bodily Removal of Houses

SIR,—I had often heard of houses in America being moved bodily from one site to another, but when I arrived in Los Angeles a little while ago I found that the friend whom I was visiting was having a house (consisting of four flats or "apartments" as they are called there), made of steel and concrete, moved about five miles. It gave me the opportunity of taking some photographs of the work, and I have pleasure in sending copies to you; your readers may find them of interest.

H. A. DART

Polytechnics and Exhibitions

SIR,—My attention has been called to correspondence on this subject in your pages, and in particular to a letter in your issue of October 8, from Mr. T. P. Bennett.

I have no desire to enter into the controversy regarding the standard of instruction at the Polytechnics. I note, however, that Mr. T. P. Bennett makes certain statements with regard to the Architectural Association School of Architecture.

Mr. Bennett states that the Northern Polytechnic has one great advantage



—Arrived !

over many of the University Schools and the Architectural Association; "and that is that the whole of the students are forced to take their profession extremely seriously. . . ." The inference from this statement is that students at the Architectural Association are not obliged to take their profession seriously. I would like to state that in my opinion Mr. Bennett is not entitled to draw any such inferences, and wish to point out that the students at the Architectural Association are not only obliged to take their profession seriously, but that the long record of successes by students of this school and its high standing are a proof that the standard of the work is excellent; and this can only be produced by serious work. In addition, many of the students at the A.A. are by no means financially independent, many being maintained either through the grant of scholarships or by their own efforts in such work as they are able to obtain during spare time and vacations.

I note also that Mr. Bennett mentions that the course of training in the Northern Polytechnic is as complete as that of any other architectural school in the country. I do not think it is unfair to claim that the efficiency of this course of training is largely due to the fact that past students of the Architectural Association have been largely drawn upon to provide the teaching staff at the Northern Polytechnic. Of this fact Mr. Bennett cannot but be aware.

Comparisons, such as Mr. Bennett sets up, cannot be other than invidious, and I am surprised that Mr. Bennett, who at the end of his letter advises your correspondent "Polygnotus" not to write letters to the press without obtaining first-hand information, should himself have fallen into the same error.

HOWARD ROBERTSON
(PRINCIPAL, ARCHITECTURAL ASSOC.)

SETTLING-UP HONEYWOOD

BY KARSHISH
(H. B. CRESWELL)

xxii: A Last Surprise

Spinlove, the architect, has resented a preposterous letter in which his client, Sir Leslie Brash, called him to account for imaginary grievances, by making a passionate reply to Brash's solicitors, who have sent him the withdrawal he demanded. The episode pointed to the existence of a much more intimate relationship than that of architect and employer, as was confirmed by Brash's growing sulky, by the friendly offices of his daughter, and by the complaisance of his wife, who has just invited Spinlove to the house on a week-end visit.

SPINLOVE TO GRIGBLAY (PRIVATE AND CONFIDENTIAL)

Dear Mr. Grigblay, 19/12/26.

I had a long talk with Sir Leslie during the week-end. He is sending you a cheque in final settlement today and with it a letter which I hope will end all memory of the upset over the painting. He now admits that he ought to have taken our advice in the first instance, and realizes that the failure of Riddoppo is in no way your fault. There has been no complaint of fumes since the furnace was relighted, and I slept for two nights in the house with windows shut and noticed nothing, so the matter is disposed of, at last.

What I am particularly writing to you about is the restoration of the paint. It is, as you know, in a dreadful state, and what is left of it will have to be thoroughly rubbed down and the whole painted anew. The family is going abroad for two months after Christmas, Sir Leslie will not be much at home, and it would be a great satisfaction to him to feel the work was in your charge. I know also that for personal reasons it would be a pleasure to him if you would undertake the work. It would also relieve me of great anxiety. I trust, therefore, that you will reconsider your decision to have nothing more to do with it.

Believe me,
Yours sincerely,

PS.—Sir Leslie has decided not to have the bedrooms painted out each in a different colour, as now; but uniformly in duck's-egg white as I originally designed.

Spinlove seems to have made good use of his week-end visit.

GRIGBLAY TO SPINLOVE (PRIVATE)

Sir, 20/12/26.

I am not going to say I was not glad to read your letter or that I do not know I have to thank you for the very considerate one I received yesterday from Sir Leslie Brash with his cheque for final balance. The old gentleman expresses himself in a remarkably handsome manner to one so far below him in station, and I have written him that nothing remains to be said.

The job of building Honeywood Grange has, one way and another, perhaps been a bit more of a trouble than it had any call to be; but that is what we have to expect sometimes in the building trade, and so long as the owner is satisfied and the architect, that is all I ask, for the house is a good one and if it wasn't it wouldn't be for want of everyone concerned having had a try at making it so.

About the painting, of course I will take on the work as asked; but I shall not be able to give an estimate and I shall want a free hand to do what I think well and I cannot guarantee perfect results although I will do my best to secure them. If you care to have it like that, I think, sir, it would be a good thing to have a talk over. I shall be in town tomorrow and can arrange to call at any time convenient after two o'clock.

Yours faithfully,

Grigblay evidently found Brash's "handsome expressions" more gracious and condescending than he had stomach for; and his sly reminder of obstruction due to the architect's solicitudes and the owner's interferences tells its own tale.

SPINLOVE TO BRASH

My dear Sir Leslie, 22/12/26.

Grigblay called to see me about the painting yesterday. He is glad to oblige us by doing the work, but as he does not know what is involved in it he cannot give an estimate. The work will be done as Day work—i.e. at net cost plus 15 per cent. to cover establishment charges and profit. This is an offer that ought certainly to be accepted.

He says he cannot actually *guarantee* perfect results, but he will spare no pains to secure them, and as he proposes to clean off the existing paint entirely and sand-paper all vestiges of it from the wood, there is no doubt all will be well. He will arrange with you about dismantling the rooms which he would rather not undertake.

I spoke to him about the threatened extension of villa-building up Honeywood Hill and the proposed development of the back land. He ridicules the whole idea and says it is merely a trick to induce you to buy the land at a high price. He says that some of the villas already built are standing empty and the work has been stopped, and that the land Barthold offers you *does not belong to him*. He only has a twelve months' option on it from Mr. Rallingbourne, who parts with no land without particular restrictions as to the buildings to be put on it. Were there no restrictions as to the number and kind of buildings that might be put on your land when you bought it? I recall that you asked me for a set of plans to send to Mr.

Rallingbourne's solicitors. Besides this, Grigblay says that there is no chance for a "Bungalow Town" anywhere near Marlford, and, if there were, nothing could be done unless the Building Bylaws were revised, and the District Council would never agree to that.

I saw my friend today, and he says the appliance I spoke of is Wealdstone's Non-inflammatory Spleen and Liver Pad, made in two strengths, "strong" and "extra." He recommends the latter. They can be re-charged from any electric light plug, and are stocked by Spedding, 92 Fountain Street, St. James's. My friend swears by it.

Every yours dutifully,

BRASH TO SPINLOVE

23/12/26.

My dear James—(to indite the new nomenclature),

I am considerably gratified and also relieved in mind at the intimation that the building propositions of Mr. Barthold are a fraudulent pretension; and as I have today received a peremptory reminder from Mr. Snitch, asking a reply to his previous communication, he will be sufficiently answered by my continued silence.

I had quite forgotten, as in my case it was a mere formality, that Mr. Rallingbourne makes it a prohibitive condition in his conveyances that only private houses of due importance and refinement of design shall be erected on the land.

Will you, since no alternative course seems expedient, be so obliging as to proceed to complete the necessary arrangements for Mr. Grigblay to undertake the renovation of the painting. We shall be unboundedly thankful—as you may imagine—to see a termination put to the disgraceful state of affairs which deforms the domicile and is no better than an unsightly eyesore.

I am obliged by the information you give anent the Radio Pad. I shall certainly test the efficacy of the device.

I have the pleasure to enclose cheque in final settlement of your fees. You will observe that I have augmented the amount to a round figure, but you will not, I hope, resent my indulging this friendly impulse as I apprehend that in giving me the right to do so you surrender the right to object!

The gong! I must hence to array me for the feast!

Ever, my dear boy,
Yours affectionately,

PS.—I am requested to remind you that the performance tomorrow is timed to commence at 8.15 and *not* at 8.30 as originally intimated.

We have long suspected that something of this sort was going to happen. Apparently, in the stress of a "reconcilly" staged by Pud barriers went down and consciences were unloaded all round; and appearances are that Brash, fitted out with a son-in-law and a (soi-disant) radio-active liver pad, will take on a new lease of that benevolence which lies beneath his weaknesses and follies: for Brash, despite his irascibility and pomposity, is a simple soul at heart. His simplicity is well borne out if we accept the hilarious implication of the liver pad; namely, that during the unbosomings of that eventful week-end Brash was led to confess to a discontented liver, whereupon his architect promptly recommended a cure for it.

This letter, the last in the folder, by explaining itself explains also those not infrequent signs of a relationship which the correspondence did not reveal, and of which Spinlove's bitter and reckless retort to Brash's outrageous strictures is the outstanding example. We cannot decide that no man would act as Spinlove did towards his prospective father-in-law, while we have no means of knowing under what circumstances he so acted. The matter, however, seems clear enough if we remember the months of badgering to which Spinlove has submitted, and suppose that when Spinlove's early friendship with the daughter ripened to deeper feelings, Brash found himself in hopeless opposition to an only child and a neurotic wife, and vented his irritation on the architect; and that Spinlove, secure in his position and unable to support the humiliation thrust upon him or go hat in hand to a man who considered himself at liberty to affront him, yielded to an impulse to have the thing out. In this elemental matter of pursuing a wife, a man who follows his impulses at least keeps faith with his manhood; and in no other affair of life does his manhood better recommend a man.

In wishing Spinlove the best of luck it must not be forgotten that this affair of his holds out new terrors to some who may be toying with the idea of employing an architect; and it is therefore desirable to make clear that Spinlove's behaviour in this matter is entirely "unprofessional."

Conclusion

AT the conclusion of this last Act of the Honeywood comedy the principal character — the editor of the compilation—following an honoured custom, pulls off the wig which has disguised him and steps in front of the curtain, as author, to thank the audience, in his natural voice, for their kind attention to the performance. There has been considerable applause and some laughter, while cat-calls from the gallery have in most cases been due to the actors being imperfectly heard or to lacunæ in their parts. The famous Brash figure has aroused disgust as well as hilarity; but if the poor man had been run over by a motor bus opposite the Bank, as nearly happened to him, the audience would have been put in mind of that essential generosity of nature which his weaknesses veiled but never entirely obscured. Of his good wife I will not speak; but I am curious to know why the ladies in the audience have not resented her, and why, particularly, they have generally objected to her daughter as a swanking young person intent on self-display. Is it that they are flattered by the remoteness of the characteristics of the elder woman from anything belonging to themselves, and jealous of the killing powers of the younger—or what? My own intimate behind-scenes familiarity with the character of Pud has given me the impression of a girl with intellect and exceptional depths of feeling, whose exuberances and slang—which is individual and not of any coterie—is partly due to abounding vitality and partly to a shyness which prompts her to disguise her real self.

Her faithful swain, the juvenile lead, Spinlove, thinks and behaves so much as I should myself if I had not (in some degree) learned better than to do so that though I have no hesitation in naming him "ass," I am hurt when I hear anyone else do it: in fact, it is my sensitiveness to derision of Spinlove that has reminded me how much of myself belongs to him; and I can say, with the heat that would lead Spinlove to similar tactlessness, that he is much less of an ass than some are who have given him that name in my hearing.

The part of Marston Grigblay has been generally regarded as the biggest in the little show, and the representation of his character as its star turn. With that judgment I certainly have no quarrel; for Grigblay—who walked onto these pages, like the rest, from nowhere—has won my almost affectionate regard. He has become as real to me as anyone I ever knew—in fact, more real; for although he never opens his mouth without giving me surprises, I seem to know him as he is under his skin in a way the ordained loneliness of life makes impossible with actual persons. Grigblay has been widely recognized as true to type; and Bloggs, in his humble way, also; and I feel that those who so recognize them could pay no higher compliment to the building trade of this country, nor a much higher one—I will even venture—to the characteristic genius of the race of Englishmen.

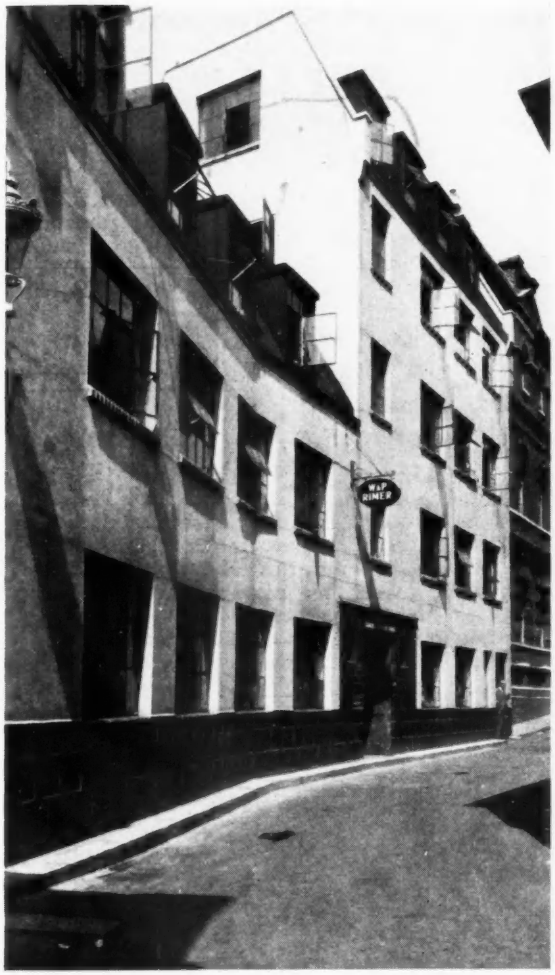
> Come the three corners of the world in arms
> And Bloggs will shock them. Naught can make us rue
> If Grigblay to himself do rest but true.

—as Shakespeare might have written had he known our friends, to whom, together with the other characters of the comedy, we have now to say "Good-bye."

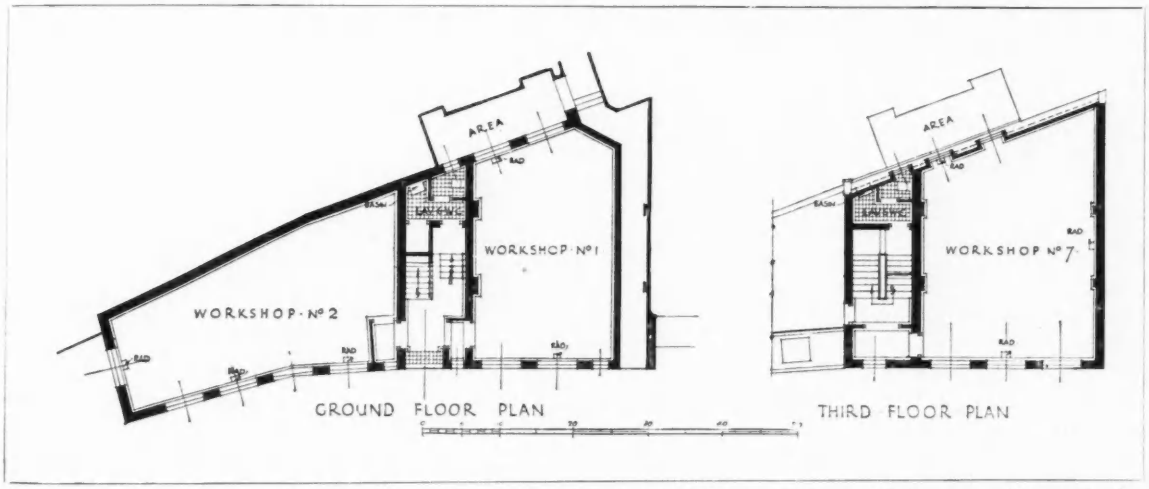
[THE END]

SMALL FACTORY OFF SAVILE ROW, W.

DESIGNED BY C. H. JAMES







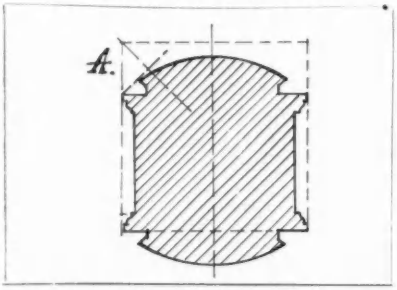
Two views of Nos. 1 and 2 Coach-and-Horses Yard; and plans of typical floors. Eight workshops are provided on the five floors, the first three of which cover the whole of the site. The main entrance leads straight to the staircases, at the back of which, in all but the top story, are centralized identical lavatories. The contract price was £5,620, or 1s. 8d. per foot cube.

QUESTIONS THAT ARISE

Base to a Statue

P. P. writes : "*I am preparing a scheme for erecting in a small town a statue in memory of a citizen who has recently died. The statue is to be life-size and mounted on a pedestal where it can be equally well seen from all sides. I have tried several models without success, the difficulty being that when the square base is in right proportion to the figure seen on any one side, it is too large when seen diagonally, and if correct on the diagonal it is far too narrow when seen squarely. What is your expert's opinion on this matter ?*"

The solution to this problem is to



vary the outline of the pedestal, as a study of old examples will show. I remember discussing this with the late Mr. A. E. Rickards, and have among my notes a solution suggested by him which is shown on the accompanying sketch.

The general square line is shown dotted, but by combining this with the oblong oval, the reduction on the width of the diagonal is as much as that shown at "A."

Aluminium Paint

P. E. writes : "*I intend using aluminium paint on some steam pipes I am fitting in an old building. What is the method of applying the paint, and will it give satisfactory adherence to the heated surface ?*"

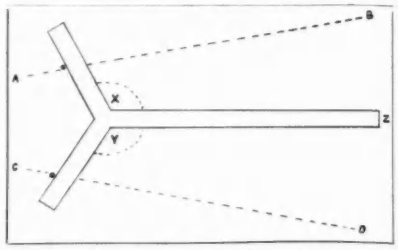
Aluminium paint can be used upon heated surfaces, such as steam pipes, hot-water pipes, flue pipes, furnaces and domestic boilers, where it is desired to reduce the heat dissipation to a minimum, more especially as the paint shows satisfactory adherence to the heated surface, even at temperatures as high as 700° F. The paint must, however, be applied to a clean, rustless surface (which should not be too smooth), and should be allowed to become quite dry before being subjected to the heat.

Under these conditions, if the surface is hot enough to destroy the vehicle, the aluminium bronze powder will still adhere to the surface of the iron, provided it is not exposed to the weather. Resin varnish will be found the most satisfactory vehicle for use in this connection. C. H. B.

Perspective Work

S. R. writes : "*Can you inform me how to set up the special form of T square, with moveable arms, used in drawing perspectives where the vanishing point is a long way beyond the drawing board ?*"

The vanishing point must first be correctly found and two lines, A B and C D, one above and one below the horizon line, drawn from this point on to the paper.



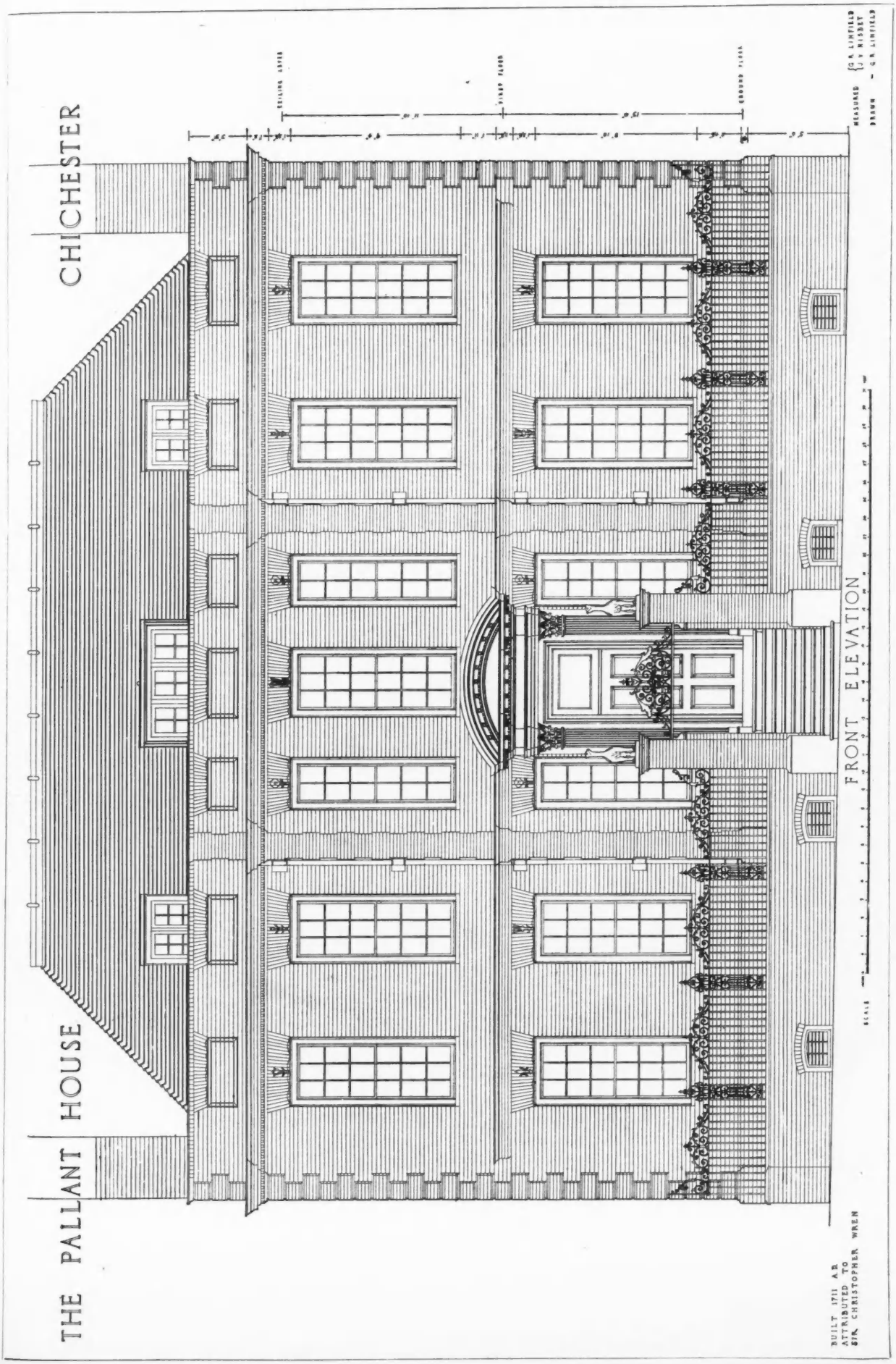
Then take any two points A, C, and in them fix the special pins on which the arms slide. Join A and C.

Set movable arms of T-square so that angle ZXA = DCA and angle ZYC = BAC.

All lines drawn on ZX as it slides over the points A and B will then converge to the true vanishing point. L. W. H.



The Pallant House, Chichester—or Swan House, as it is also called, from the somewhat indeterminate fowl sculptured at the tops of the gate piers—was built in 1711 and is attributed to Wren. Latterly in use as offices of the Westhampnett R.D.C., it is mainly of red brick; cornice, string-course, window-heads and quoins being cut. On the facing page is reproduced a drawing of the front elevation, measured by J. V. Nisbet and G. R. Linfield and drawn by the latter ; others, of external and internal details, will appear in forthcoming issues.


THE PALLANT HOUSE CHICHESTER
FRONT ELEVATION
BUILT 1711 A.D.
ATTRIBUTED TO
SIR CHRISTOPHER WREN

THE SKETCH CLUB
FOURTEENTH SESSION

Old Cottage, Cambus o' May, Aberdeenshire.
By J. Fenton Wyness
(Pencil : 6″×9″)

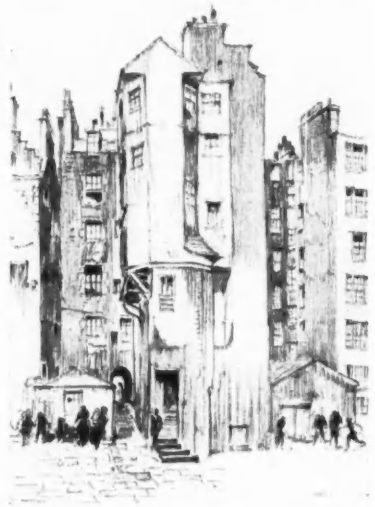




Edinburgh Castle, from the Grassmarket.
By J. Maxwell Scott
(Pencil and slight crayon : 5½″×7½″)

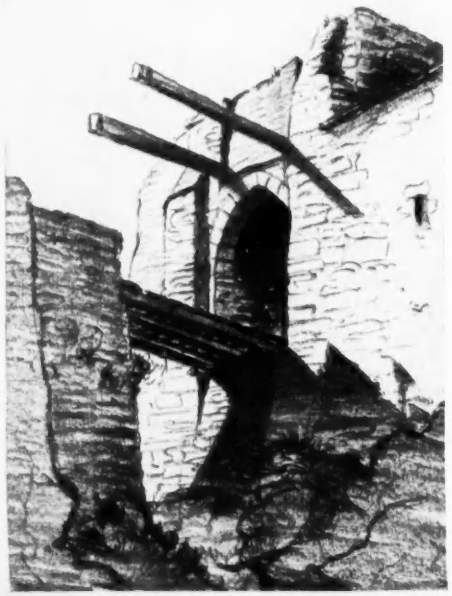
James's Court, Lawnmarket, Edinburgh.
By J. Maxwell Scott
(Pencil and slight crayon : 5¼″×8″)

A church, Lago Maggiore.
By Edward Carrick
(Ink and blue wash : 6¾″×7½″)



Central tower and South transept, Lincoln Cathedral.
By C. Neville Nettletone
(Pencil : 6½″×8¼″)





Fort la Latte, Brittany.
By E. B. Musman
(Black crayon : 8″×11¾″)

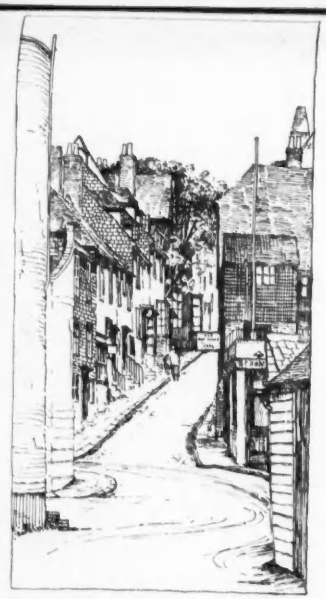
The drawing shows the draw - bridge over the outer keep of this ancient fort near Cap Fréhel, Brittany. Fort la Latte or Castel-Goyon, built in 937, was bought in 1689 by Louis XIV who restored it. It was once used as a pirates' stronghold.



Tübingen, Württemberg.
By A. J. R. Marshall
(Pencil : 7½″×10½″)

The old university town of Tübingen basks in the sun on the south slope of a ridge of the Württemberg Hills. The River Neckar flows at the bottom. In the streets, which are narrow and steep, with steps in many places, it is forbidden to ride even a bicycle.





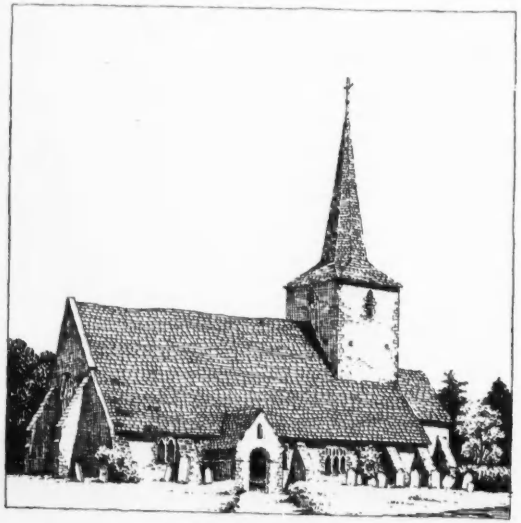
Mermaid Street, Rye.
By G. M. McKinlay
(Pen and ink : 4″ × 8″)



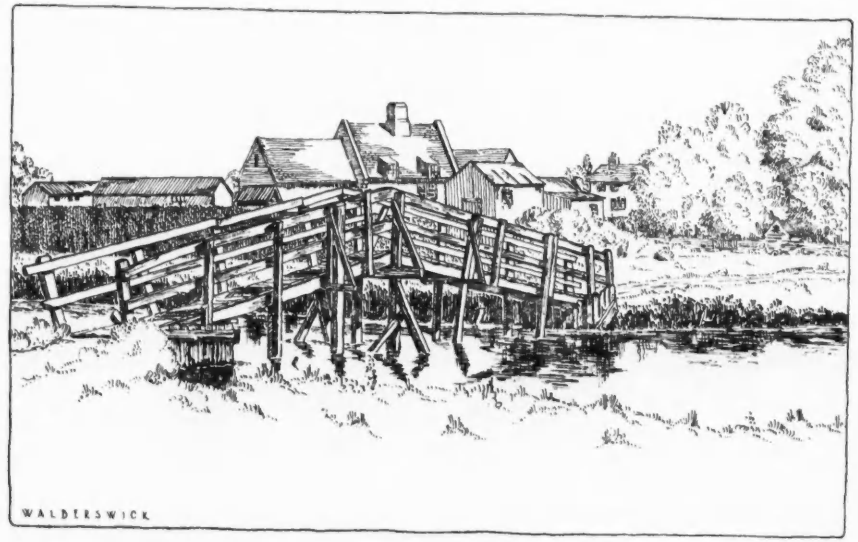
The Old Bridge, Dinan, Brittany.
By J. C. Robinson
(Pencil : 14″ × 10¼″)



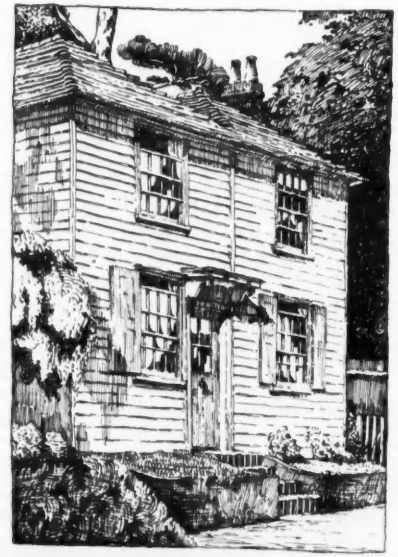
Cottage at West Hendred, Berkshire.
By Arthur E. Cameron
(Pen and ink : 5⅜″ × 7½″)



Church at Playden, Sussex.
By G. M. McKinlay
(Pen and ink : 5¾″ × 5¾″)



Wooden bridge at Walberswick, Suffolk.
By Arthur E. Cameron
(Pen and ink : 8½″ × 5¼″)



Platt Cottage, Winchelsea, Sussex.
By G. M. McKinlay
(Pen and ink : 4¼″ × 6″)

STEEL STRUCTURES RESEARCH

Conference Recommends New Scientific Code

SIR CLEMENT HINDLEY, chairman of the Steel Structures Research Committee, presided on October 16 over a representative conference held at the Institution of Civil Engineers. A resolution was unanimously carried approving the value of a standard practice for the employment of structural steel in building, and expressing the hope that the results of the work of the committee would be applied as they accrued.

Four influential bodies had prepared statements that were laid before the conference, and their points are briefly summarized below :

STEEL STRUCTURES RESEARCH COMMITTEE

It is becoming generally realized that full advantage is not being taken of the excellent qualities which steel possesses as a material for building construction. This neglect is attributable partly to the lack of precise knowledge of the strength characteristics under load, and partly to the prevalence in building codes of restrictions, which, whatever their merits in the early stages of development, have remained too long unrevised.

The factor of safety originally adopted was really a factor of ignorance to allow, amongst other things, for the incomplete stress analysis. The same factor is still used in the design of a good deal of steel construction, notwithstanding the advances made in both the quality of the material and general knowledge of structural design. So far as theory of structures is concerned, the important developments associated with aircraft design and with the design of railway bridges have not been so marked in general steel construction.

The time seems opportune for an organized attempt in England to introduce more exact methods of calculation. By refining the methods of stress calculation it will be possible to obtain a much closer idea of the stresses in a given structure and to adopt a more precise factor of safety.

An authoritative research committee has been appointed, consisting of representatives of the Institution of Civil Engineers, of the British Steelwork Association, and eminent engineers nominated by the Department of Scientific and Industrial Research, to supervise and direct the work. Its terms of reference are :

1 : To review present methods and regulations for the design of steel structures, including bridges.

2 : To investigate the application of modern theory of structures to the design of steel structures, including bridges, and to make recommendations for the translation to practice of such of the results as would appear to lead to more efficient and economical design.

MINISTRY OF HEALTH

The lengthy memorandum on the law and practice of public control of building in England and Wales (with appendix on the Scottish law of building), prepared by the Ministry of Health, had as its aim the logical arrangement in relation to building practice, and specially to steel structures, of the main features of a very complex branch of law. The scheme of arrangement was :

1 : The authorities exercising control.
2 : The legal forms of control.
- (i) General Acts.
- (ii) Local Acts.
- (iii) Subordinate legislation.
  - A. Bylaws.
  - B. Regulations.
  - C. Town planning.
- (iv) Discretionary powers.

3 : The law as it is, and what happens in practice.
- A. Bylaws.
  - Model bylaws; the policy pursued.
  - Local bylaws; the policy becomes effective.
- B. Local Acts.
- C. Notices and plans.

4 : Interpretation and application.

BRITISH ENGINEERING STANDARDS ASSOCIATION

After recapitulating the objects of the British Engineering Standards Association, their statement went on to remark : The members of the conference are probably quite aware that the work carried out by the Association under the general term of standardization includes the preparation of British Standard Specifications defining quality of material, standards of performance, and also factors of safety and methods to be adopted for assessing them. In fact, the preparation of any agreed technical basis or conditions deserving of national adoption as a British standard for the assistance of industry, may be said to come properly within the scope of this Association.

It is generally recognized that the work of research necessitates a somewhat different outlook from the work of preparing industrial standards, and the fact that the practical recommendations based on research are so often prepared and issued by the British Standards Association has quite definite advantages.

Research committees are generally seeking for perfection in their work and are consequently apt to feel it difficult to issue any recommendations to industry until their work is completed, whereas the committees of the Association, by their very constitution, necessarily take the purely industrial point of view and are prepared to adopt more or less provisional recommendations for immediate industrial purposes. They leave experience on the practical application of the specification and the completion of the research work to bring about the improvements desired.

BRITISH STEELWORK ASSOCIATION

The British Steelwork Association was formed :

To promote and develop the production and use of structural steelwork throughout the Empire;

To encourage experimental and research work for the purpose of improving methods of manufacture and design of steelwork and evolving new uses for steel;

To collect and spread information on structural steelwork, to offer service to architects, engineers and local authorities; and to be prepared to supply information to universities and technical colleges on the latest practice in the design and fabrication of steelwork, and, in fact, to operate as an information bureau on steel in modern bridge building and building construction.

It is generally recognized that if the building industry is to keep pace with modern requirements, more rational methods of building are essential. But a rationalization of the building industry presupposes a rationalization of the legal control exercised by which alone uniformity of design and standardization can be effected. The beginnings of this are well exemplified in the model bylaws of the Ministry of Health, and in seeking the aid of the Department of Scientific and Industrial Research and the British Engineering Standards Association in the problems which confront it, the steel industry is making its contribution towards a more rational basis of construction.

THE PROCEEDINGS

The chairman, in the course of his presidential speech, said the committee had decided on the early issue of an interim report, formulating a code of practice in steel structure design; but they were aiming at no hard and fast standardization which in a few years might become out of date.

In the subsequent discussion, Mr. David Anderson, representing the Institution of Civil Engineers, and Mr. W. T. MacLellan, president of the British Steelwork Association, were at one in advocating advance by standardization; Mr. A. N. C. Shelley said the Minister of Health was considering how far the results of the conference could be applied, while retaining local freedom in bylaws ; and Mr. G.

Topham Forrest said the L.C.C. were in sympathy with any and every endeavour to secure greater simplicity and economy in steel construction. Dr. H. M. Tory (Canada), Mr. J. Davies (Australia), Dr. Marsden (New Zealand), and Mr. W. A. J. Day (South African State Railways) expressed approval of and keen interest in the aims in view.

LITERATURE

THE NINETEENTH CENTURY

SOME years ago it was the fashion to decry everything Victorian. A more balanced criticism today appraises the nineteenth century and discovers much of permanent value among the rubbish. Perhaps Freudians will discover that the time spirit also has an inferiority complex, which forces it to ridicule the immediate past. Whatever may be the cause it is certain that the present finds the follies of the Edwardians more amusing than those of the Early Victorians. The latter are becoming interesting, and this book is an attempt to understand an age, as well as an excuse to poke fun at some of the Olympians.

It was the Great Exhibition of 1851 that divided the nineteenth century both in time and in mind. Throughout its first fifty years the tradition of the eighteenth century persisted side by side with the romantic urge of the Gothic Revival. The really great names were not Wyatt and Essex, but Cockrell, Decimus Burton, Soane and Barry, architects who founded their designs on classic tradition, the last even going so far as to prepare a classic plan for his Tudor Houses of Parliament. It is only after 1851 that chaos reigns, and in spite of such Gothic architects as Scott and Street one finds a style of "Modern-Venetian-Grecian-Gothic-Baroque-Georgian all put into the pot and stirred well."

Parts of this book should be read as a cautionary guide by critics, and the quotations from the Victorian *Builder*, *Punch*, and *The Times* should make their modern descendants becomingly wary. When Edwin Chadwick suggested, among other things, that the drainage of towns should be conveyed in sewers, *The Times* wrote: "We prefer to take our chance of cholera and the rest, than to be bullied into health"; and it was not until the smells from the Thames became intolerable under the windows of the House of Commons that anything was done to co-ordinate the drainage of London.

To some of the later architects of the century the author does not seem to do justice. The influence of Norman Shaw was profound on his many famous pupils. Pearson is not lifted into the "realm of architectural myth" solely on the merit of his work at Truro and Malta. His London churches are scholarly, and St. John's, Red Lion Square, a masterpiece of planning. Something has surely happened to Mr. Harbron towards the end, when on page 156 he says that "Sir Horace Jones clothed the skeleton of the Tower Bridge in a suitable garment," and dismisses Belcher as an architect who used classic motifs "in a personal fashion, with lumps and knobs on." The Tower Bridge is the most meretricious building in London, and Belcher, in his Mappin Building and in other places, was trying to evolve a design for the modern shop-front that would be architectural as well as commercial—no easy task at a time when the London shopkeepers had been badly scared by Norman Shaw's Regent Street façade.

There is an alluring gaiety about the book which conceals the scholarship. Like the Jester of the "Yeomen of the Guard," Mr. Harbron wears motley,

> For he who'd make his fellow-creatures wise,
> Should always gild the philosophic pill.
>
> LL. E. W.

Amphion, or The Nineteenth Century. By Dudley Harbron, F.R.I.B.A. London: J. M. Dent and Son. Price 6s. net.

LITTLE-KNOWN ENGLAND

THERE must be few people in England today to whom Mr. Harold Eberlein's latest book, *Little-Known England*, will not convey a certain feeling of ignorance and regret. How few of us really know this country in which we live! Here, however, is our opportunity of exploring it with the author as our able guide. We can wander with him through parts of East Anglia, the Chilterns, the Cotswolds, and other places of historical interest as well as of extraordinary beauty.

The book is well written, and the reader's interest is not allowed to wane in any part. It is obviously the work of a man who writes from experience, not merely from a knowledge gleaned by delving in tourists' guides, as are so many of the inferior books in this category.

During his survey of the Welsh Borderland the author makes some interesting remarks concerning the entrance into Ludlow Town. He says: ". . . of all the roads into Ludlow town, none is so beautiful, none has such truly dramatic quality, as the road from Hereford. It drops down a sharp rise at the end of Bringewood Chase and, just as it rounds a bend, there is Ludford Bridge, a splendid mediæval stone-arched structure over the Teme. Opposite is the town, piled up on an eminence, its west and south sides washed by the Teme, whose waters murmur over the weirs. The bridge continues the downward slope of the road to the farther bank; thence a broad street sweeps straight uphill to the ancient south gate. Within the gate (see illustration on this page) this goodly street goes right up to the brow of the hill in the centre of the town. The sudden view of this broad, steep roadway bursting upon you unexpectedly, after the narrowness of the gateway, makes you catch your breath. "Many of the houses on both sides show stately Georgian fronts; others, of earlier date, proclaim the local half-timber tradition. It is as noble an entrance as any town in England can boast." Those of us who have seen this entrance to Ludlow cannot but applaud Mr. Eberlein's vision.

The author incorporates in his book five invaluable scale maps, namely, the

The Narrow Gateway, Broad Street, Ludlow, Salop.



[*From* Little-Known England.]

Welsh Border south of Shrewsbury, the Cotswolds, the Berkshire Downs, North Buckinghamshire and the Chilterns, and East Anglia and Essex.

The book is as competently illustrated as it is written; and, in conclusion, I can only hope that the author's exposure to the public eye, in such an enthralling manner, of the favourite haunts of many lovers of beauty, will not lead to the necessity for rubbish boxes and anti-litter campaigns in the woods and on the downs of Little-Known England. M. G.

Little-Known England. By Harold Eberlein. London: B. T. Batsford, Ltd. Price 12s. 6d. net.



The Almshouses, Chipping Campden, Gloucestershire.

[*From* Little-Known England.]

Publications Received

Modern Theatres and Cinemas. By P. Morton Shand. London: B. T. Batsford, Ltd. Price 15s. net.

An Apology for St. Paul's Cathedral. By Canon H. Scott Holland. Edited by J. H. Whitehouse. London: Humphrey Milford. Price 2s. 6d. net.

The Romance of Archæology. By R. V. D. Magoffin and Emily C. Davis. London: G. Bell and Sons, Ltd. Price 18s. net.

The Protection of Our English Churches. Fourth Report of the Central Council for the Care of Churches. London: Press and Publications Board of the Church Assembly. Price 3s.

Builders' Materials. By R. F. B. Grundy. London: Longmans Green & Co., Ltd. Price 5s.

The London Magazine. New Series. No. 1. Price 6d. net.

SOCIETIES AND INSTITUTIONS

ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND

THE first meeting of the session of the Council of the Royal Incorporation of Architects in Scotland was held at 15 Rutland Square, Edinburgh—Mr. John Watson, A.R.S.A., F.R.I.B.A., Glasgow (president), in the chair. Prior to the meeting the members of Council were entertained to luncheon by the president, the prize-winners for the past session and Mr. J. N. Summerson, B.A., editor of *The Quarterly*, being the guests of the Incorporation. At the luncheon Mr. J. B. Moffat, of the College of Art, Edinburgh, who gained the Rowand Anderson Scholarship of £100, was presented with the silver medal, which is awarded with it.

The secretary reported on the donations received to date for the Lorimer Memorial Fund; and intimated that representatives of the architects, surveyors, and contractors would at an early date resume consideration of the provision of the general conditions of contract affecting building works in Scotland. Mr. Watson stressed the great importance of all accredited architects in Scotland being members of the Incorporation through one or other of its five Chapters and of the R.I.B.A. conjointly.

Mr. J. T. Thomson, Glasgow, was elected a Fellow of the Incorporation, while Messrs. Andrew Douglas and H. S. M'Nair, both of Ayr, were elected Associates.

THE STOCKHOLM EXHIBITION

A lecture, illustrated by lantern slides, on "The Stockholm Exhibition of 1930" was delivered by Mr. Charles Marriott to a meeting of the Anglo-Swedish Society on Wednesday last. Sir Harold Wernher occupied the chair.

Mr. Marriott said what he did not think was sufficiently recognized was that the Stockholm Exhibition was a belated recognition of a great change in the conditions of life and industry—the substitution of machine for hand labour. It was the most consistent attempt he had seen to show what could be done with characteristic methods of production. The movement represented was not peculiarly Swedish; it was an international movement, but the architect, Mr. Asplund, had given to it a Swedish flavour.

Roughly, he stated, there were three ways of treating contemporary civilization; one was to run away from it; another was to become enthusiastic about it; and the third, and he thought the best way, was to take it for granted. The Stockholm Exhibition was a frank and calm acceptance of things as they are, and an attempt to make the best of them artistically on their own lines; and as reflecting the Swedish combination of idealism and common sense it cleared the way for the future.

THE WORK OF THE CIVIL ENGINEER

The opening meeting of the Institution of Civil Engineers (Manchester and District Branch) was held in Manchester on Thursday last.

Mr. W. F. H. Creber, the new chairman of the branch, in his address suggested that the engineer needed more courage, that he should be pleased to discover, if he could, a flaw in a Lutyens building, or a redundant member in a Dean bridge. Engineers today were inclined to float along on the inherited experience of the engineering profession; they were spoonfed in this age of every kind of machine. In the days of Middleton, Vermuyden, Smeaton and Brindley, every engineer was "his own scientific man," and it would be well if all engineers were to recall first principles now and again, to look at their objective and ask what were its essentials. Engineers should remain students after they had left the student class, for their work was not concerned merely with technical problems, but with economic, legal, and commercial problems, too.

STRUCTURAL SCIENCE IN MEDIÆVAL TIMES

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts, on Wednesday last, gave a graphic description, illustrated by lantern slides and models, of the structural principles of Gothic cathedrals, in their "vaulting" or arched stone ceilings; their buttresses, to resist the thrust of such vaults; and their flying buttresses to bring the pressures of the high vaults down across intervening roofs to the outer edge of the buildings.

He explained the evolution of vaulting types, from the continuous barrel vault like that of a Tube railway tunnel, through the cross-vault, to the type characteristic of mediæval work.

IN THAT CONTINGENCY

The following inquiries and answers on corrosion of metal by magnesium chloride, and damp roofs, are two recently submitted by contractors to the Building Research Station. The information given in the replies quoted is based on available knowledge.

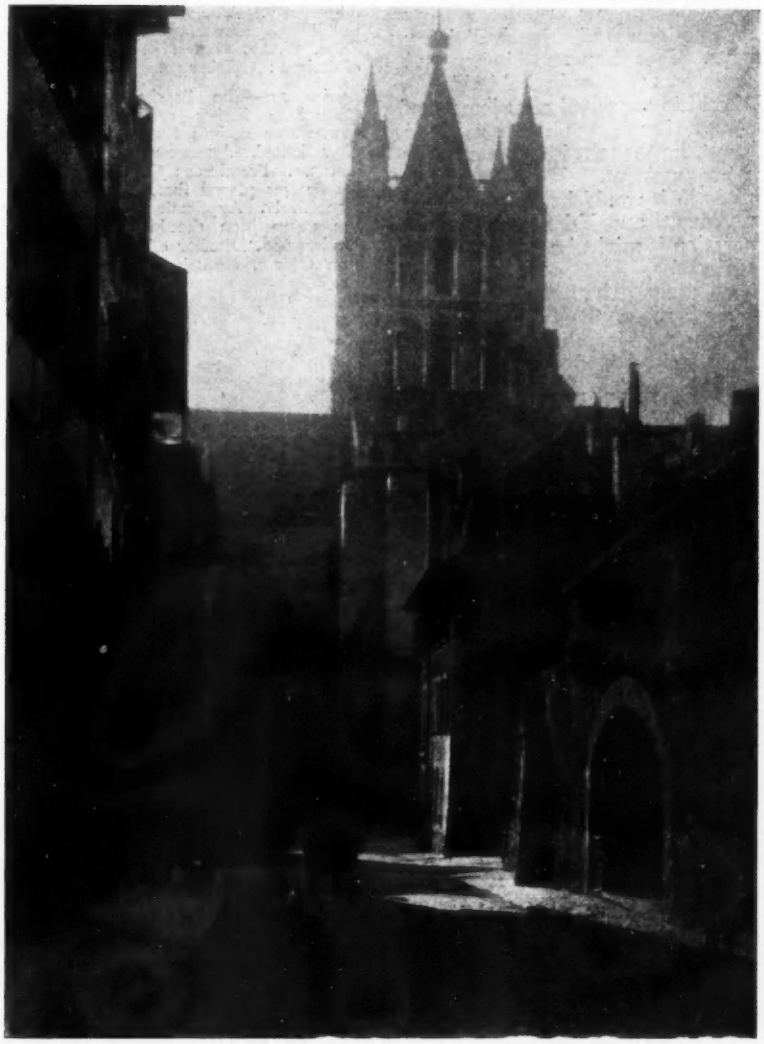
CONTRACTORS reported : That, when mixing chemicals for jointless flooring, sub-contractors allowed a tub to leak on to a reinforced concrete landing, 6 ins. thick, in which a heating panel had been installed.

They stated that the chemical contained in the tub was understood to be a chloride and feared that some corrosion would take place: they desired advice as to the course which should be pursued in order to minimize the damage caused by the liquid.

It was ascertained that the floor was of dense, well-compacted concrete, and that the bulk of the solution had been absorbed by adjacent brick walls.

Reply : Magnesium chloride solution, used in laying magnesium oxychloride jointless flooring, has an aggressively corrosive action on metals such as iron or steel. Cases have been investigated where serious corrosion of heating installations has occurred on account of failure to insulate piping from the corrosive action of flooring of this type.

In this particular case the landing, being made of good dense concrete, is unlikely to have absorbed any appreciable quantity of the chloride solution. The few areas on the underside, where a superficial layer is affected by solution which had passed through a hole in the floor and spread along the lower surface, could be treated by chipping off the surface concrete to a depth of about $\frac{1}{4}$ in.



[*Reproduced by courtesy of The Royal Photographic Society.*

A photographic study of the Cathedral, Lausanne. By the late Charles Job.

The condition of the adjacent brick walls is a more serious matter as it is evident that a large amount of the chloride solution has been absorbed. The effect of the presence of the solution in the areas affected will be to have a strongly corrosive action on embedded electrical conduits, and it will tend to cause disfiguration of internal decoration by damp stains owing to the hygroscopic nature of the salt.

So far as can be seen, there are only two possible treatments to remedy the trouble in this case. Complete removal of all saturated brickwork would obviously be the most effective method, but considering the advanced state of the building work this would hardly be practicable.

The alternative would be to insulate all metal, such as electrical conduit and pipe runs passing through the wall, from the corrosive effect of the chloride solution by means of a thorough coating with bitumastic paint or similar preparation. Disfigurement of decoration could be avoided by treating the affected area of brickwork with a waterproof membrane on the inner face over which plaster and decorations could subsequently be applied. An attempt should be made to remove the salts at the exterior face of the wall by periodic washing with copious amounts of water.

Damp Roofs

Slating and tiling contractors reported : That trouble had been experienced due to penetration of moisture through a roof covered with hand-made, sand-faced tiles. It was found on inquiry that the roof had a steep pitch of 50°. The tiles were laid on battens nailed to the rafters, and were torched on the underside. The penetration of moisture was confined to south and west aspects of the roof, and took the form of dampness of the rafters which conducted the moisture to the ceilings below. It appeared that the tiles were quite normal in respect of porosity.

Reply : It was concluded that this case was similar to a number of others which had previously been considered and that the penetration of moisture was due to the torching which had been applied.

When tiles are hanging on battens or boarding, *without torching*, there are a number of points of contact between tiles and timber, but no continuous capillary path between them, and the worst condition likely to be experienced would be the presence of a slight amount of moisture on the timber at the points of contact.

With a torched roof a different condition arises as the mortar may, and usually does, provide a continuous capillary path through which water can gain access to a large area of timber. It was suggested that the torching should be removed over the affected area of the roof.

LAW REPORTS

LESSEE'S CLAIM FOR RELIEF

Berliner v. *T. M. Fairclough and Sons, Ltd. T. M. Fairclough and Sons, Ltd.*, v. *Berliner. Chancery Division. Before Mr. Justice Maugham*

THESE two actions centred around the premises known as Premierland, Whitechapel, and judgment was given for Messrs. Fairclough, the lessors, for possession, his lordship holding that where a lessee claimed relief, the word lessee included all those who enjoyed the term of the lease as joint tenants, and that relief could not be given where only one lessee applied for it. It appeared that there were two lessees, Mr. Berliner and a Mr. Lyttlestone, and the former did not join in the application for relief against forfeiture nor for a new lease or compensation. There were two leases, and they contained full repairing covenants. The premises were in a rough state, and there had been trouble in regard to the repairs.

The defendant Lyttlestone, through his counsel, sought relief. Mr. Berliner appeared in person and said he wished to be free of all liability as soon as possible, and did not seek relief.

Evidence was given that the premises were in a dilapidated state.

His lordship gave judgment for possession as stated.

CLOSING ORDER

Parry v. *Rochester Corporation. Parry* v. *St. Catherine's Hospital. Chancery Division. Before Mr. Justice Maugham*

THE first action was brought by Mrs. Emily Parry, carrying on a tobacconist's business at 228 High Street, Rochester, against the Rochester Corporation for a declaration that a certain closing order made in March, 1929, in respect of a dwelling-house known as 228 High Street, Rochester, purporting to be made by the Corporation, was illegal, *ultra vires* and improper, and for an injunction restraining the Corporation from acting upon any such order.

There was a second action by the same plaintiff against the trustees of St. Catherine's Hospital for damages resulting from the Corporation's action in regard to the premises.

It was decided to hear the cases separately.

Mr. Kelly appeared for the plaintiff, Mr. Johnston and Mr. Gordon Alchin for the Corporation, and the trustees were represented by Mr. Johnston.

The action resulted from a closing order made under the Housing Act in relation to the plaintiff's premises. The Corporation were part owners of the premises. The plaintiff had been in possession of the premises since 1898. The site was an island site. The plaintiff was a weekly tenant at 12s. 10d. a week. The Corporation decided to make alterations in the street and set it back, and they gave the plaintiff notice to quit. There was an action for possession in the County Court in January, 1929, which was dismissed by the judge, who held that the Corporation had not proved that there was alternative accommodation for Mrs. Parry. Adjoining property was demolished and damage was then done to the plaintiff's premises. Proceedings were taken for a closing order, and the Corporation, in 1929, made such an order. For the plaintiff it was submitted that the order was *ultra vires*, as the Corporation had not used its discretion.

Mr. Kelly argued that it must be shown in order to make a closing order that the whole house was unfit for habitation and not part of it only, as in this case. Here the plaintiff had resided in part of the house all along.

Plaintiff gave evidence as to the damage done to her premises during the demolition of the adjoining property. Her shop and kitchen and two bedrooms were quite habitable.

His lordship suggested a settlement of the case, saying though he was ready to try it out, he thought it was a case for some arrangement. If he found for the plaintiff it would hold up a public improvement, and if he found for the Corporation it might be a hardship on the plaintiff.

After consulting with his lordship in his private room, the two cases were adjourned in order that a settlement might be arrived at if possible.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9, Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

28340. Bayliss, P., and Mackay, A. J., and Thompson, H. W. A. Fixing slabs, etc., in frames for buildings, etc. September 22.

28494. Delpech, A. Reinforced concrete structures. September 23.

28830. Bennetts, J. H. Clamping device for building construction, etc. September 26.

29424. Bemis Industries, Inc. Building construction. October 1.

29693. Brock, E. W. Walls, piers, beams, etc. October 4.

29714. Craven, E. S. Manufacture of building bricks. October 4.

St. Dunstan's Report

The fifteenth annual report of St. Dunstan's states that the financial position, which is and always has been based solely upon voluntary contributions, has been well maintained. The endowment of St. Dunstan's, begun three years ago, and estimated to be concluded twelve years hence, proceeds satisfactorily. The blinded soldiers and sailors under the care of St. Dunstan's throughout the Empire have been provided through the agency of St. Dunstan's organization with more employment than in any previous year. St. Dunstan's responsibility necessarily extends to the blind men's wives and children, and the family thus numbers 1,911 officers and men, and 5,101 wives and children.

COMPETITIONS OPEN

October 30.—Development of a site at Liverpool, fronting St. John's Lane, Queen Square and Rose Street. Premiums: £250, £100 and £50, for first, second and third prizes, respectively. The Secretary, the General Building Syndicate, Ltd., 36 St. Martin's Lane, W.C.2. Latest date for submission of designs: October 30.

November 17.—The Scarborough Education Committee invites architects to submit competitive designs for the Seamer Road New School. Assessor: Morris Thompson, F.R.I.B.A. Premiums: £100, £60, and £40, for designs placed first, second and third, respectively. Applications for conditions of the competition should be made to R. Underwood, Director of Education, Education Offices, Huntriss Road, Scarborough, not later than November 17. Deposit £1 1s. Latest date for submission of designs: January 17.

November 30.—The Burton-on-Trent Local Education Authority invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor: H. T. Buckland, F.R.I.B.A. Premiums: £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs: November 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young

Communist Square), and will contain a mass musical stage, and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

February 1.—The Norwich Corporation invites architects practising in Norwich and in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb. 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, OCTOBER 22

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Romanesque Period in Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Second of a course of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTE OF ARBITRATORS. At the Incorporated Accountants' Hall, Victoria Embankment, W.C.2. Discussion on "Commercial and Industrial Problems." **6 p.m.**

INSTITUTE OF FUEL. Annual Conference to be held at the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2, until October 23. Evening: Annual Dinner to be held at the Connaught Rooms, Great Queen Street, W.C.2, **6.45 p.m.**

AUSTRALIAN TIMBER EXHIBITION. At Australia House, Strand, W.C.2. Exhibition will remain open until November 7.

THURSDAY, OCTOBER 23

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Literature Standing Committee.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Croydon Chapter. Dinner and Dance to be held at the Greyhound Hotel, Croydon. Tickets: 12s. 6d. single, 20s. double.

INCORPORATED INSTITUTE OF BRITISH DECORATORS. At Carpenters' Hall, Throgmorton Avenue, E.C.2. "The Stockholm Exhibition of Decorative Art." By Henry G. Dowling, F.R.S.A., F.I.B.D. Reception 7.30 p.m. Lecture 8 p.m. Refreshments 9.30 p.m. **7.30 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS, Savoy Place, Victoria Embankment, W.C.2. Inaugural address by the President, C. C. Paterson, O.B.E. (Light Refreshments 5.30 p.m.). **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.2. Yates Lectures. Second of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor E. A. Gardner. (Lantern Illustrations.) **5 p.m.**

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by T. J. Clark, A.I.STRUCT.E., of the British Portland Cement Association. **7.30 p.m.**

FRIDAY, OCTOBER 24

R.I.B.A., 9 Conduit Street, W.1. Exhibition of drawings by students exempted from the R.I.B.A. Intermediate Examination. Until October 31. 10 a.m. to 8 p.m. (Saturdays, 10 a.m. to 5 p.m.).

SATURDAY, OCTOBER 25

Sunrise, 6.40 a.m. Sunset, 4.48 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the works of Messrs. Johnson, Dartford. **2 p.m.**

TUESDAY, OCTOBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "English Ironwork." By Edward Yates. **7 p.m.**

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Architecture: the Citizen's Part." By Clough Williams-Ellis, F.R.I.B.A. **8 p.m.**

WEDNESDAY, OCTOBER 29

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 Conduit Street, W.1. "Stained Glass." By Sir Charles Nicholson, Bart., F.R.I.B.A. **8 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Last of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Romanesque Period in North and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

THURSDAY, OCTOBER 30

ARCHITECTURE CLUB. At the Architectural Association, 34 Bedford Square, W.C.1. Annual General Meeting, followed by a Supper Discussion on "Function—As Expressed in Modern Swedish Architecture," to be opened by Professor C. H. Reilly, F.R.I.B.A. **7.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Third of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. First of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

BURTON-ON-TRENT COUNCIL SCHOOL COMPETITION. Latest date for submission of designs.

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

FRIDAY, OCTOBER 31

OVERHEAD LINES ASSOCIATION. At the Georgian Restaurant, Harrods, Ltd., Knightsbridge, W. Third Annual Conversazione and Supper Dance. Reception by the President, 8.30 p.m. **8 p.m.**

SATURDAY, NOVEMBER 1

Sunrise, 6.5 a.m. Sunset, 4.34 p.m.

HORNIMAN MUSEUM, Forest Hill, S.E.23. "London in the Stuart Age." By D. Martin Roberts, M.A. (Lantern Illustrations.) **3.30 p.m.**

MONDAY, NOVEMBER 3

R.I.B.A., 9 Conduit Street, W.1. Allied Societies Conference, 2 p.m. Meeting of the Board of Architectural Education, 2.30 p.m. Council Meeting, 4.30 p.m. Opening General Meeting; address by the President, Sir Banister Fletcher, P.R.I.B.A., F.S.A. 8.30 p.m. **2 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. Mersey and North Wales (Liverpool) Centre. At the Laboratories of Applied Electricity, the University, Liverpool. "The Steam and Electric Power Plant of Imperial Chemical Industries, Ltd., at Billingham" (to be illustrated by a cinematograph film). **7 p.m.**

TUESDAY, NOVEMBER 4

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Practice Standing Committee.

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Public lecture on "Egyptian Statues." By Miss M. A. Murray. (Lantern Illustrations.) **5.30 p.m.**

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Industry." By Sir Walter Layton, C.H. **8 p.m.**

WEDNESDAY, NOVEMBER 5

R.I.B.A., 9 Conduit Street, W.1. Meetings of the Art Standing Committee and the Board of Architectural Education Examinations Committee.

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in North Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. Sessional Meeting. "The Operation of the Heat Pump, and its Possible Applications to Heating Problems, particularly Swimming Bath Heating." By T. G. N. Haldane, M.A., A.M.I.E.E. **7 p.m.**

INSTITUTION OF SANITARY ENGINEERS. Annual Dinner, to be held at the Holborn Restaurant, W.C. **7 p.m.**

THURSDAY, NOVEMBER 6

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. At the Municipal School of Art, Brighton. "Modern Buildings." By Francis R. Yerbury. (Lantern Illustrations.)

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lecture. Fourth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Second of a course of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Building: Its Sculpture and Painting." By Professor E. S. Prior (Lantern Illustrations.) **5.30 p.m.**

SATURDAY, NOVEMBER 8

Sunrise, 7.4 a.m. Sunset, 4.23 p.m.

MONDAY, NOVEMBER 10

SOCIETY OF MOTION PICTURE ENGINEERS. At the Royal Photographic Society, 35 Russell Square, W.C.1. "Sound Film Studio." By C. W. Glover, A.M.INST.C.E., M.I.STRUCT.E. **7.45 p.m.**

TUESDAY, NOVEMBER 11

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Life and the Countryside." By J. W. Robertson Scott. **8 p.m.**

WEDNESDAY, NOVEMBER 12

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. Smoking Concert, to be held at Booth's Restaurant, East Street, Brighton. Chairman: John L. Denman, F.R.I.B.A.

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in Central and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

THURSDAY, NOVEMBER 13

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Science Standing Committee.

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Fifth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Third of five public lectures on "Re-planning of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Modern Pigments: Their Proper Selection and Use." By A. P. Laurie, D.SC. **4 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre, "English Mediæval Painting." By W. G. Constable, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :

The New Victoria Theatre (pages 608, 611-615). General contractors, McLaughlin and Harvey, Ltd. Sub-contractors : H. Young & Co., Ltd., constructional steelwork; J. Jeffreys & Co., Ltd., heating and ventilating; C. Isler & Co., Ltd., artesian well and pumps; F. Bradford & Co., Ltd., ferro-concrete balcony and staircases; Concrete, Ltd., ferro-concrete floors; Burn Bros. (London), Ltd., plumbing and sanitary work; Stuart's Granolithic Co., Ltd., artificial stone facings and pavings; F. Braby & Co., Ltd., water tanks; Frank Burkitt, fire-proof curtain and counterweight system; Dennison, Kett & Co., Ltd., roller shutters; J. Gardner & Co., Ltd., ventilating louvres; Conrad Parlanti, Ltd., outside canopy and wrought metalwork; Garton and Thorne, Ltd., wrought metalwork; Henry Hope and Sons, Ltd., steel sashes and stage lantern light; J. A. King & Co., Ltd., pavement lights; Self-Sentering Expanded Metal Co., Ltd., steel centering for plaster works; J. W. Gray and Son, Ltd., lightning conductor; Brunswick Engineering Co., sliding roof shutter; Fenning & Co., Ltd., granite; Clarke and Vigilant Sprinklers, Ltd., sprinklers and fire hydrants; Shanks & Co., sanitary apparatus; The Chiswick Guild, wood panelling; John Bennie, Ltd., passenger lift; Morant and Miller, Ltd., glass ceiling lights; Clark and Fenn, Ltd., fibrous plaster and decorative works; Lap (C.I. Process), Ltd., modelled exterior panels; Venesta, Ltd., plymax doors and wall linings; Art Marbles Stone and Mosaic Co., Ltd., marble floors; Marble Mosaic Co., Ltd., terrazzo floors and wall linings; W. W. Turner, Ltd., seats and carpets; Lawford & Co., asphalt; Cement Marketing Co., Ltd., cement; London Brick Co. and Forders, Ltd., bricks; The Standard Insulator Co., Ltd., rubber flooring; F. H. Pride & Co., electrical fittings; John Compton Organ Co., Ltd., organ; Siemens-Schuckert (Great Britain), Ltd., stage lighting ; Plastex Manufacturing Co., plastic paint. The Strand Electric and Engineering Co. were responsible for much of the stage lighting equipment. In addition, the whole of the stage scheme of colour lighting was obtained by the use of Strand Electric's colour media.

Factory, Coach and Horses Yard, Savile Row, W.1 (page 625). General contractors, Bywaters and Sons, Ltd. Sub-contractors : Salter Edwards & Co., Ltd., asphalt; Aston Construction Co., Ltd., structural steel; J. A. King & Co., Ltd., fireproof construction; Watkins and Stone, electric wiring; John Bolding and Sons, Ltd., sanitary fittings; Stuart's Granolithic Co., Ltd., stair treads; A. E. Davis, door furniture; Crittall Manufacturing Co., Ltd., casements; Bostwick Gate and Shutter Co., Ltd., folding gates.

TRADE NOTES

Mr. L. V. Kenward, who has during the past twenty years occupied various positions with the Dunlop Rubber Company and latterly that of general sales director, has now been appointed general manager of subsidiary companies. Mr. Kenward will therefore no longer be intimately associated with the sale of tyres, but he will retain his seat on the Fort Dunlop local board which deals with tyre questions. The subsidiary companies include the Macintosh group of companies engaged in the rubber footwear, water and rainproof garment and general rubber goods businesses. Since the companies were acquired in 1926 these lines have been assuming an increasingly important place in the Dunlop output and the Board has come to the conclusion that the time has arrived when special arrangements should be made for their intensive development. It will be remembered that Mr. L. V. Kenward was recently re-elected chairman of the India Rubber Manufacturers' Association for the second year in succession.

*

Perforated metals for any screening, grading, cleaning, sorting and filtering requirement are the subject of catalogue No. 464, just issued by Messrs. G. A. Harvey & Co. (London), Ltd. Illustrations and details are given of numerous patterns of perforations, including round, square, diamond square, slots of various types and placings, stabbed, embossed and ornamental patterns. It is the boast of the firm that they are able to supply any perforated metal requirement for any purpose. In addition to iron and steel, the firm perforate nickel, stainless steel, copper, brass, bronze, monel metal, aluminium, lead, delta metal, duralumin, zinc, tinplates, as well as paper, boards, and cloth. The perforated metals meet every requirement, from the screening of coal, coke, gravel and ore to the sifting and separating of food products and fine chemicals.

*

The Interoven Stove Co., Ltd., sole manufacturers of Pascall's patent Interoven and Super Interoven convertible stoves, and of the Bewty fire adjustable barless front (Pascall's Patent), have just issued a new catalogue to the trade. In it are shown several reductions in prices, which the firm are able to make owing to the large and increasing demand for their manufactures. Leaflets have also been published to illustrate and describe two of the firm's new specialities : the Cheerio boiler and the Super Bewty fire. The latter not only converts the old register grate into a modern barless fire, but it also replaces the burnt-out bottom bars. The Cheer-ee-o is an open fire, continuous burning, heating stove, which can, it is said, be kept alight day and night at minimum cost. It is claimed that the combustion in the stove is so perfect that only a very small amount of ash accumulates in the ashes pan. The stove can be connected to any fire grate or in any position where it is possible to instal a flue pipe of 5 ins. diameter, and is easily fitted without employing expert labour. The Cheerio domestic boiler is a wrought steel independent boiler suitable for connecting to a 35-gallon tank, and with an output of 35,000 B.T.U.'s. The main advantages claimed for the boiler are an excellent open fire and a good hotplate for cooking. It is also claimed that the boiler will not crack either when coated with fur or in frosty weather.

*

Mr. John Ames, secretary and general manager of the Portland Cement Selling and Distributing Co., Ltd., the selling organization of the Red Triangle Cement group, has been elected chairman of the Incorporated Sales Managers' Association for the ensuing year. Sir Francis Goodenough was elected president.

*

Some striking reductions in the prices of Unity Tubular skirting heaters are shown in the revised list prices. The new prices affect sixteen different types of heater and show reductions in prices in most cases of over fifty per cent.

*

The factories of The Brilliant Sign Co., Ltd., are daily turning out a record number of signs suitable for every conceivable purpose. Those of our readers who can take the opportunity to visit the company's new reception room and showroom at 131 Uxbridge Road, five minutes from Shepherd's Bush Tube Station, will find an extensive display of signcraft of every description, and a number of new effects to blend with modern frontages and fittings, which should appeal particularly to those contemplating reconstruction work. In congenial surroundings, visitors may examine and test the efficiency of the Brilliant Sign Co.'s products. They may also visit the company's adjoining factories which embrace three acres of floor space, and provide employment for five hundred workmen. The various processes of manufacture and the great array of costly machinery cannot fail to interest. The firm, it will be recalled, invented the original Brilliant letter forty years ago. They have now issued a new catalogue, a voluminous production with many illustrations in full colours, a copy of which may be obtained on application to The Brilliant Sign Co., Ltd., Paragon Works, Shepherd's Bush, London, W.12.

ANNOUNCEMENTS

Mr. John T. Burt, F.S.I., chartered quantity surveyor, has removed his offices from 6a St. Martins, to 5 Grey Friars, Leicester.

Mr. Arthur A. Bowes, P.A.S.I., chartered surveyor, has removed his offices from 14 Cook Street to 62 Dale Street, Liverpool. Telephone No. : Bank 4879.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

Messrs. Herbert O. Ellis and Clarke, FF.R.I.B.A., in conjunction with Mr. F. C. Bayliss, F.R.I.B.A., superintending architect to W. H. Smith and Son, are preparing plans for a stationery and bookbinding factory and showrooms, which W. H. Smith and Son propose erecting on the ALBERT EMBANKMENT, near Lambeth Bridge.

The L.C.C. has invited the municipal authorities of BERMONDSEY to undertake the clearance of two congested areas of the Borough known as Leroy Street and Bethel Place.

Plans are nearing completion of the new cinema to be erected in CAMBERWELL, for the Loughborough Playhouses, Ltd. The building will have seating accommodation for about 3,000 persons. Mr. Clifford Aish is the architect.

The Woolwich Council is negotiating for the purchase of a further 280 acres of land for housing purposes at ELTHAM.

Messrs. Hoare and Company are to rebuild the "Pied Bull," Liverpool Road, FINSBURY, at an estimated cost of £12,000.

Mr. Septimus Warwick has prepared plans for the reconstruction of the Devonshire Club, Arlington Street, PICCADILLY, W.1. The estimated total cost is £47,500.

The STOKE NEWINGTON Borough Council has decided to adopt the scheme for the erection of a new municipal building, at an estimated capital cost of £77,500. The architects are Messrs. Hobden and Porri.

EASTERN COUNTIES

The GREAT YARMOUTH Education Committee recommends the Town Council to borrow £27,000 for the erection of the new Hospital School; also £13,254 for a new school at Gorleston.

On the recommendation of the Education Committee, the LINCOLN City Council has decided to apply to the Ministry of Health for sanction to borrow £8,641 for the acquisition of a site for the completion of the reorganization scheme for senior girls in the central part of the city; also for the extension of Spring Hill Council school.

SOUTHERN COUNTIES

The FARNHAM U.D.C. has received sanction from the Ministry of Health to borrow £4,180, for the erection of twelve cottages at Trape.

Plans passed by the FARNHAM U.D.C.: Rebuilding Lloyds Bank, Castle Street; house, Alfred Road, for A. J. Stedman; house, Bridgefield, for G. W. Baigent; house and garage, Shortheath, for A. H. Parratt; house, Wings Road, for H. S. Burningham; alterations, 47, The Borough, for Cullens, Ltd.; alterations, the "Black Prince"; additions, Brookley Cottage, Runfold, for T. A. Allen; alterations and additions, Shortheath Place, for C. H. Biddulph-Pinchard.

Plans passed by the GODSTONE R.D.C.: Two cottages, Limpsfield Chart, for Mr. A. W. Clemes; alterations and additions, East Hill Road, Oxted, for Mr. G. Leach; sixty houses, Green Road, Oxted, for Mr. W. H. Spark; new roads and sewers, Shawfields, Barrow.

At a recent meeting of the HASTINGS Town Council, a scheme was approved for the erection of 110 houses at Hollington, at an estimated cost of £43,453.

At a recent meeting of the PETERSFIELD U.D.C. plans were approved for the erection of a new mortuary in the Council yard, near the fire-station.

Plans passed by the WYCOMBE Rural Council: Pair of cottages, Longwick; stable and garage at Loosley Row; dwelling house, Stokenchurch; two houses at Wooburn; cottage and garage, Flackwell Heath; house at Downley.

SOUTH-WESTERN COUNTIES

Plans have been prepared by Mr. H. J. Hammick, on behalf of the Regent Cinema Co. (Plymouth), for the proposed erection of a super-cinema in Cambridge Street, PLYMOUTH.

The POOLE Borough Council has approved the erection, by private enterprise, of over sixty houses.

The TORQUAY Corporation hope to proceed with the widening of the sea-front promenade during the present winter.

The WEYMOUTH Corporation has obtained a Government grant for a scheme for the improvement of the harbour, at a cost of £124,000.

MIDLAND COUNTIES

Plans passed by the CANNOCK U.D.C.: House, Old Penkridge Road, Cannock, for Mr. R. Bates; bungalow, Watling Street, Wedges Mills, for Mr. W. G. Smith; conversion of existing building into two bungalows, North Street, Bridgton, for Messrs. A. Wootton and Sons; house and shop, Princess Street, West Chadsmoor, for Mr. F. Robinson; two houses, Dartmouth Road, Cannock, for Mr. Cyril Wootton; house, Pye Green Road, Cannock, for Mr. R. Holford; shop, Florence Street, Hednesford, for Mr. T. Beardmore; shop, Wolverhampton Road, Cannock, for Mr. L. G. H. Swift.

The Gloucestershire E.C. has approved plans for additional accommodation at the Double View Council school, EAST DEAN, at an estimated cost of £9,800.

It is proposed to erect a new infants' school, with nursery school, on a site taken from the vicarage grounds at LEIGH. It is also proposed to remodel the present premises in Church Street to make a junior school.

The LOUGHBOROUGH Town Council propose to erect thirty-two flats for aged couples who occupy houses which the Council are to demolish.

The layout plans for fifty houses, proposed to be erected in Willowbridge Lane, SUTTON, have been approved by the Sutton U.D.C., subject to sanction being received from the Ministry of Health.

The clerk to the TIPTON (STAFFS.) U.D.C. has been instructed to negotiate for the purchase of land adjoining the Blue Pig Row property at Horseley Heath, for the provision of new municipal buildings, estimated to cost £45,000.

Plans passed by the WELLINGBOROUGH U.D.C.: Five garages, Leighton Estate, for C. J. Mather; pair of semi-detached houses, Eastfield Road, for H. A. Garrod.

The WORCESTER Infirmary Committee is to proceed with the carrying out of the first portion of its extension scheme, which will cost £90,000.

NORTHERN COUNTIES

The ACCRINGTON T.C. has under consideration the erection of new police and fire stations in Manchester Road, from plans prepared by Mr. P. Thomas, F.R.I.B.A.

It was announced at a recent meeting of the Bredbury and Romiley U.D.C. that the Cheshire C.C. propose to build a new primary school in BREDBURY to accommodate 150 infants.

A cinema is to be erected in Crackenedge Lane, DEWSBURY, Yorkshire, with accommodation for 1,700 persons. Plans have been prepared by Mr. Robert Cromie, F.R.I.B.A.

At a meeting of the HULL Corporation, consideration was given to a scheme—estimated to cost, with equipment, £48,500—for the erection of new swimming baths on land adjacent to the Newington open-air baths in Albert Avenue. The scheme was referred to a sub-committee for detailed consideration.

A cinema is to be erected in HULL, situated between Paragon Square and Beverley Road corner. A corner site has been chosen, with frontages to the new street and West Street. The seating capacity will, it is expected, be over 3,000, and the cost approximately £100,000.

Application is to be made next month, by the LIVERPOOL county magistrates, for permission to erect a cinema to seat 2,000 persons, in Crosby Road North, Waterloo. Plans have been prepared by Mr. Lionel A. G. Pritchard, A.R.I.B.A.

Plans passed at ST. HELENS: Two dwelling-houses, Prescot Road, for William Lyon; alterations to buildings, Grove Street, for Pilkington Bros.; twenty-four and fourteen houses, Chamberlain Street, for J. M. Wilson and Son; additions to Catholic Grammar School, West Park Road, for Rev. Bro. Francis; three cottages, Charnwood Street, for J. B. Williams; dwelling-house, Rivington Road, for J. Gleave and Son; two dwelling-houses, Whitefield Road, for Joseph Vose.

The Lancashire county architect has prepared plans for a new grammar school for 400 girls in Higher Lane, STAND, estimated to cost £48,585. The cost includes equipment of the building and layout of tennis court.

Plans passed by the STOCKTON Town Council: Two semi-detached bungalows, Fife Road, Norton, for Messrs. R. Blackett & Co.: alterations to the Commercial Hotel, Norton, for Messrs. J. W. Cameron & Co.: fourteen semi-detached houses, Oxbridge Lane, for Messrs. R. W. Russell and Son: temporary church, Durham Road, for Rev. A. J. Bott; house, Ragworth Road, Norton, for Mr. A. Thorpe.

The WHITBY U.D.C. has decided to sell 1,400 square yards of land, on the new Royal Crescent, at present used as a parkage, for the erection of a private hotel, subject to terms being agreed upon.

Plans passed by the WHITEHAVEN Town Council: Pavilion, Miners' Welfare Grounds, Kells; alterations to the premises of the Whitehaven News, Ltd.; garage, 23 Earls Road.

SCOTLAND

The Hamilton Dean of Guild Court has passed plans for the erection of new workshop premises in Greenfield Road, BURNBANK, by the Lanarkshire Bolt and Rivet Co., Ltd.

The EDINBURGH Council has agreed to the erection of eighteen houses, consisting of three blocks of six three-apartment houses, on the open space at the extreme south-west of the Wardie Housing Area.

Messrs. Thompson and Inglis are to erect twenty houses in Granton Road, EDINBURGH.

The Commercial Bank of Scotland, Ltd., EDINBURGH, has been granted permission by the Glasgow Dean of Guild Court to erect a building at the north-west corner of West George Street and West Nile Street.

Messrs. Lewis, store proprietors, are to reconstruct the Royal Polytechnic Stores, GLASGOW, at a cost of £40,000.

The GLASGOW Corporation Sub-Committee on Insanitary Areas is to ask the Sub-Committee on Sites and Buildings to arrange for the erection of 1,000 houses for the purpose of re-housing the tenants of houses to be dealt with by closing or demolition orders in the central and northern districts of Glasgow.

The GLASGOW Corporation has agreed to the granting of a subsidy for the erection of 1,364 houses at King's Park by the Western Heritable Investment Co., Ltd.

Plans have been passed for the erection of new works opposite their present premises, for the Lanarkshire Bolt and Rivet Co., Ltd., HAMILTON.

The Good Templar Hall, PAISLEY, where the Glen Cinema disaster took place last year, has been purchased by Paisley Corporation for road improvement purposes.

IRELAND

Tenders are shortly to be invited for the erection of the new Cottage Hospital, BALLYMONEY.

At a meeting of the DUBLIN City Commissioners it was announced that the Cabra area, containing forty-two acres of land, had been acquired. Plans were passed for the erection of 641 four-roomed houses on the site. It was also stated that a contract had been placed for sewers and roads at a cost of £25,331.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_1	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead ..	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A_2	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A_2	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:			
Portmadoc Ladies	£14	0	0
Countess	23	0	0
Duchess	32	10	0
Old Delabole — *Med. Grey*	£45	1	0
Old Delabole — *Med. Green*	33	0	6
24 in. × 12 in.	£42	11	3
20 in. × 10 in.	31	4	3
16 in. × 10 in.	20	18	0
14 in. × 8 in.	12	1	0
Green Randoms, per ton	22	4	9
Grey-green do., per ton	12	16	3
Green peggies, 12 in. to 8 in. long, per ton	8	3	9
In 4-ton truck loads, delivered Nine Elms station.	7	3	9
Clips, lead, per lb.	5	13	9
Clips, copper, per lb.	£0	0	6
Nails, compo, per cwt.	0	2	0
Nails, copper, per lb.	0	1	6
Cement and sand, see "Excavator," etc., above.	0	2	2
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey			Med. Green		
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18s. 0d. per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ¾ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8¾*d. per hour ;* MATE, *do.*, 1*s.* 3½*d. per hour ;* ERECTOR, 1*s.* 8¾*d. per hour ;* FITTER, 1*s.* 8¾*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour ;* MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	1	8
DO. ¾ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1½ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *¾ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up — £0 3 0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* FRENCH POLISHER, 1*s.* 8½*d. per hour ;* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall..	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ¼ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ¼ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ¾ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



PORCH, WITH DORMER WINDOW ABOVE, AT MESSACK HOUSE, CORNWALL.

Designed by JOHN D. CLARKE

A *DORMER window opening on to the flat roof of an entrance porch, together with which it forms a unit in the design of the façade, is shown in the photograph reproduced above of part of a house at Messack Point, Cornwall.*

The lights of the dormer are of steel, built into a wood frame with a wood mullion and cill, and fitted with a transome, hung at the bottom to open in, to allow of easy ventilation when the doors are closed. The fluted architrave, with traditional frieze, dentil cornice and pediment, is of deal, painted. The top of the pediment is covered in lead, but the cheeks of the dormer are finished in cement mortar on expanded metal lathing.

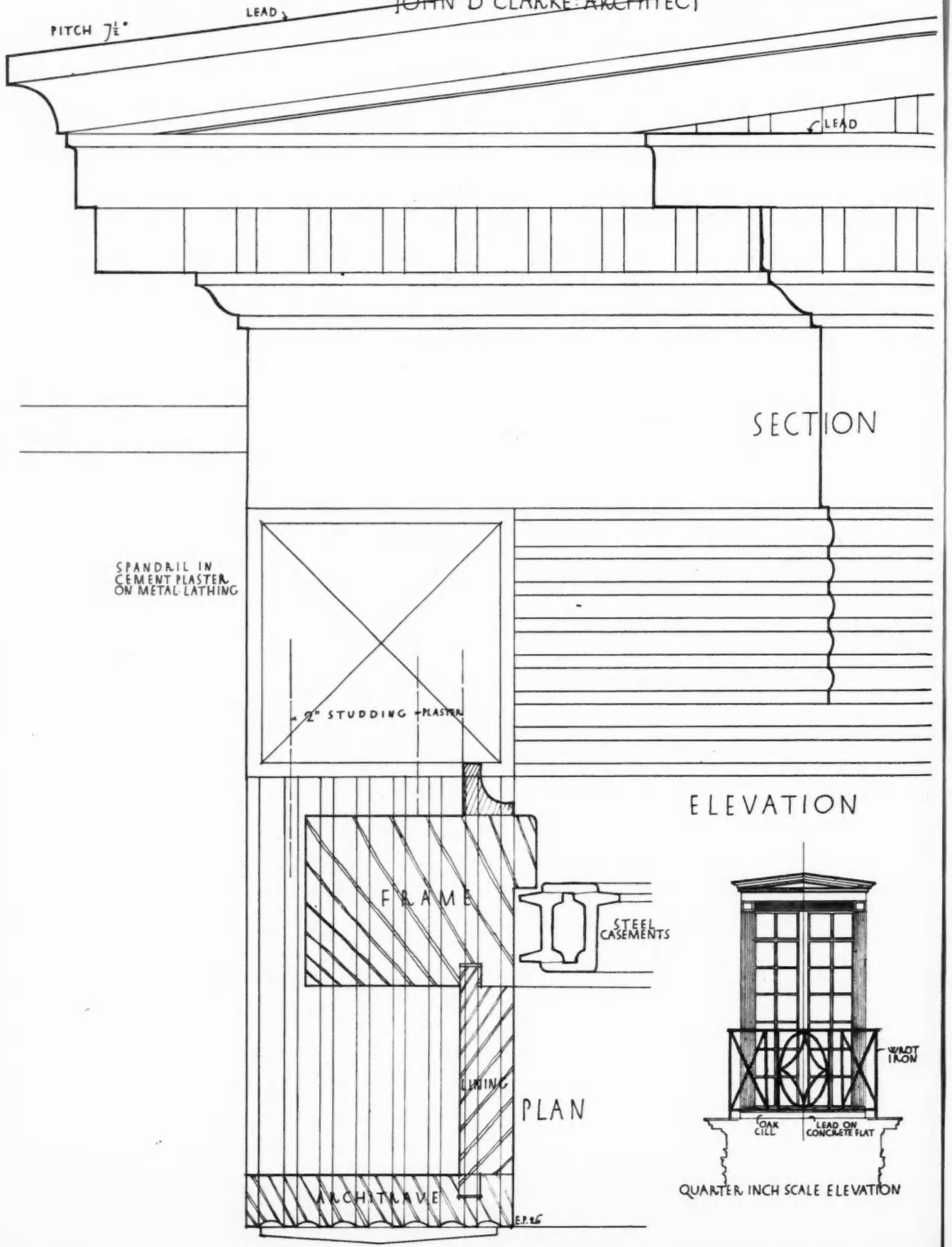
The drawings overleaf give a general elevation of the dormer, together with its wrought iron balcony, to a scale of a quarter of an inch to a foot ; and also details of the architrave, frieze and cornice, half full size.

The drawings reproduced overleaf may be read with architects' ordinary scales.

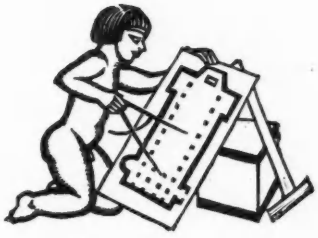
MESSACK HOUSE, CORNWALL.

DORMER WINDOW + QUARTER INCH ~~SCALE & HALF F.S.D~~

JOHN D CLARKE: ~~ARCHITECT~~



THE ARCHITECTS' JOURNAL



WEDNESDAY, OCTOBER 29, 1930

THE PROOF OF THE PUDDING

"*Know Thyself.*"

—SAYING ATTRIBUTED TO SOLON OF ATHENS, ONE OF THE SEVEN WISE MEN OF GREECE.

THE building of Honeywood Grange has occupied a conspicuous place in this JOURNAL for a great part of nearly two years, and we are here moved to inspect the "completed edifice"—as Brash would call it. *Settling-Up Honeywood*, which was brought to conclusion in our last issue, was concerned with the eating of the pudding, mixed and cooked with such particularity of detail in *The Honeywood File*; and as the matters dealt with in this second book—which, under the title of *The Honeywood Settlement*, is to be published shortly—either completed episodes or arose from circumstances recounted in the first, the two volumes constitute one book.

The work stands alone, we believe, in purpose, in plan and in craftsmanship. That purpose—as stated by the author in the first paragraph of the serial introduction to *The Honeywood File*—of presenting to those advanced students of architecture who are versed in the rules of a game they have never played, an intimate view of the field of their future activities, and of reducing to terms of common business intercourse the law, customs, science and art of building, is new.

The plan, to display the detailed circumstances of the building of a house by letters exchanged between the various persons concerned in the undertaking, is new—as is also the critical commentary explanatory of technical points and hidden implications arising in the letters. And the use of literary devices by which the personalities of a large variety of characters is vividly presented solely by their diction and by their way of thinking—and not thinking—this is new, too. For though the telling of stories by interchange of imaginary letters has engaged many writers from Fanny Burney to E. V. Lucas, none has, we believe, ever before exactly faced the task which the author of the Honeywood books set himself.

The educational value of the work which, although it particularly avoids being didactic, is its special aim, is attested by the opinion of the principals of some of the leading architectural schools and by their recommendation of it to their pupils, some of whom have cited Brash and Spinlove in their professional practice papers at the Institute final examination; and also by letters we have received from senior architects appreciative of the usefulness of the book. It is to such critics alone that it is possible to look for endorsement of the author's claim of verisimilitude.

The colours of his picture, as he has been careful to point out, are necessarily brighter than life; no portentous client was ever quite so pompous as Brash; no builder—unfortunately—perhaps ever so wise, so ironically humorous or so helpful as Grigblay; no foreman, possibly, ever at once so limited and so resourceful and estimable as Bloggs.

And it is expedient to admit that perhaps the building of no house ever afforded such sappy episodes as did the building of Honeywood Grange. Yet the characters and the events have been widely commended as typical by those qualified to recognize them, and more youthful readers who have from time to time questioned the truth of the picture, have, in doing so, perhaps proved the need which it is the purpose of the book to satisfy.

Of Spinlove, the architect—who is the central figure and who, throughout the two volumes, rides gales that are largely of his own raising, and whom everyone must have been relieved to see at last safely harboured—the author, in his concluding comment, says a disarming thing when he humorously admits that in Spinlove he recognizes much that belongs to himself. Perhaps other architects who have the self-knowledge that only experience can bring have made the same discovery.

The difficulties that met Spinlove from without and which, in kind, are the lot of all architects, were not so great as those that Spinlove encountered from within and which, in degree, are the heritage of all men. Here perhaps, rightly read, is the chief lesson of the book.



MODERNISMS IN CLOSE COMMUNION

In High Holborn, W.C. : The building for the Times Furnishing Company, by Cecil J. Eprile (1929) and that for Crawford's by Frederick Etchells and Herbert A. Welch (1930). Both buildings are strikingly, indeed perpendicularly, different in architectural treatment, yet each displays a precision of purpose which enables them to live together in harmony. They have practically the same lines in windows and parapet ; and the ground-floor stories are executed in the same black marble. Further illustrations of Crawford's appear on pages 652-655

NEWS & TOPICS



The late E. R. Kennedy, F.R.I.B.A., councillor and immediate past president of the Ulster Society of Architects, and a member of the firm of Munce and Kennedy of Belfast, whose death occurred recently.

NO SKYSCRAPERS IN LONDON

IT is unlikely, after all, that buildings will be permitted to scrape the London sky, at least for some time to come. The ban, however, has its origin not at all in æsthetics but, ironically enough, in common prudence. So long as the City possesses pumps and appliances capable of fighting fire effectively only up to a height of 80 ft., with modified protection up to 100 ft., no metropolitan authority in its senses—certainly not the L.C.C.—could countenance the fire risks attaching to higher buildings. The Council's Building Acts Committee have accordingly given it as their opinion that " the height of 100 ft. is the maximum which should be permitted in respect of any building in London." Of course, if this is the only reason at the back of this resolution, the mechanical engineer may be counted upon to undermine it; but that will take time—and money.

UNPOPULAR FLAT ROOFS

Four blocks of L.C.C. dwellings have flat roofs and in no one case are they popular as playgrounds for children or as drying-grounds. The objections to their use for children or clothes-drying are mainly threefold : *a:* Noise causing annoyance to the occupants in the top story; *b:* The dirt from soot and smoke; *c:* The high cost of maintaining flat roofs, which often prove porous and unsatisfactory. I am not saying that these objections are not enough to prohibit the use of existing flat roofs, or even the building of new ones in the immediate future, but I do think that we are going to make use of flat roofs for these very purposes to a growing extent, and that, while their present deficiencies are recognized to be a drawback, we would be better advised to perfect the flat roof than go back to wasteful roofs and gables. Of the objections, (*a*) and (*c*) are things that can be remedied by manufacturers as soon as they feel the pressing demand.

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The soot and smoke problem is more difficult. It is equally present at ground and roof level, and it should be as easy to clean a roof as a yard, but, apart from this, we must surely look to a steady diminishing of atmospheric pollution. I wonder if there are any reliable figures available showing its decline during the last twenty years, for we should be able to know what we can reasonably count on before launching upon a style of architecture dependent upon clean city air. I feel we should know a good deal more about this interesting subject.

THE LESSON OF WASHINGTON

For Washington Mr. Frank Baldwin, secretary of the American Institute of Architects, in his absorbing lecture at the R.I.B.A. last week, claimed the uncommon distinction, shared only by Alexandria and St. Petersburg among cities of this size, of having been built on a preconceived plan. When, at the close of the Revolutionary War, President Washington decided to remove the capital to the point of intersection of the Potomac and Anacosta Rivers, he entrusted the layout to a French engineer, Major L'Enfant, the kernel of whose scheme was disposition about one main axis. And a brave start was made. The subsequent history is a sad commentary on the fallibility of human nature. After the lapse of some twenty years the image of an ideal began to pale before the urge to expand, and today, when it is again shining forth, the tragic errors of the intervening century are being retrieved at heavy cost—cost which makes a considerable hole in the £40,000,000 appropriated to make a fresh start. The remarkable thing is that the plan conceived 150 years ago should still be of any validity in conditions that could not then have been foreseen.

DILAPIDATION OF COUNCIL HOUSES

Up Birmingham way they have been having trouble with the somewhat rapid dilapidation of Council houses. For one thing, people have been falling through the rotted floors. On one occasion, so they say, a woman and her children slipped through, and the chairman of the R.D.C. concerned was informed, in reply to a question, that occurrences of the sort were not uncommon; also that some of the windows and doors had no fastenings. The causes assigned were the rotting of war-time timber, the moisture in which had been retained, as regards the floors, by the laying down of linoleum, and, in some cases, the fatal gardening activities of tenants, resulting in bringing the level of the soil above the dampcourses. Nine years is, of course, a scandalously short life for a floor, and to renew will cost the Council £10 per house. Such a state of affairs is, unfortunately, by no means peculiar to this district. It comes to this, that not only has the country paid dearly for many Council housing schemes, but that already it must spend more to maintain them in barely habitable condition.

CALTON JAIL : THE LAST PHASE

The Office of Works have now abandoned their plans for the Calton Jail site, and, subject to the reservation of a portion of it for the Sheriff Court, they offer it to the Corporation of Edinburgh. Though the objections to the official plans have been directed to their suitability and quality, and not to the fact of their occupying a site that should remain open, the Office of Works have never really countenanced the policy of employing a private architect through the agency of an open competition. They have withdrawn in order to claim whate.er tactical victory a rearguard action is likely to bring them, leaving the Sheriff Court as a skeleton force. In other words, Official architecture has been routed, and by the Royal Commission. Also, it has been routed on questions of taste, being provedly inadequate in face of a problem the best solution of which demanded, in a peculiar degree, both imagination and fine planning. In the upshot, Edinburgh is thus left with a wonderful site on its hands, which no possible reaction should suffer to be filled by

a building even less worthy than that the Office of Works were about to erect.

STEEL IN THE MAKING

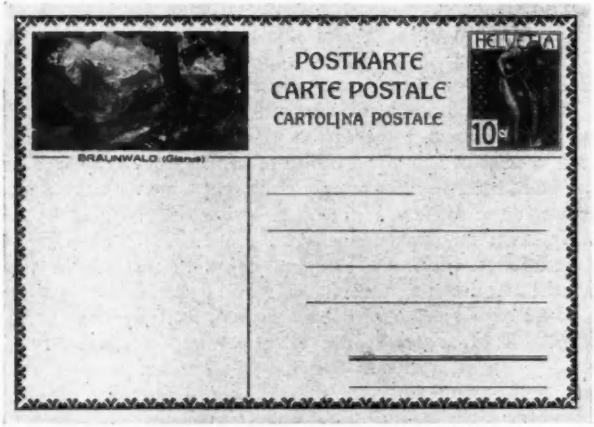
When writing last week about steel structure research I had no space to record impressions recently received in a works where steel, the thing itself, is actually made. On one of my infrequent journeys to the Black North I found myself in a ship lying weatherbound at that very wharf in the Tees from which the steelwork for Sydney Harbour Bridge was shipped. One thing led to another, and a day or two later I had the privilege of being taken on a tour through Messrs. Dorman Long's Redcar works, devoted to the manufacture of pig iron and steel, and the rolling of steel plates.

★

We began with a blast furnace, an enormous cylinder more than 20 ft. in diameter and some 75 ft. high. One can walk round below the base containing the hearth or crucible, which is of an inverted conical shape, and upon which streams of running water are kept playing. There are a number of tuyères for the introduction of the blasts—air and heated compressed gas—necessary to the process, and there are also, at the height of a man, a number of eye-pieces—a 1-in. circle of blue glass mounted in the end of what is very like a prodigious telescope. Through these the initiated can gain some idea of what is passing in the inferno within, but the lay eye receives merely an impression of blinding light.

★

The tapping of a blast furnace is a spectacle sufficiently impressive to prepare one for the vivid pyrotechnics to come. Two holes are tapped, one for the slag at a higher and another for the molten iron at a lower level. The slag comes out rather like white-hot treacle, the iron looks as fluid as, or perhaps more fluid than, water. A few scintillations dance momentarily above it, like suddenly incandescent butterflies. It enters a channel prepared in a vast area of sand, and the bulk of the tapping is run into a ladle capable of holding many tons. When the ladle is full the stream of molten iron is diverted into the rectangular system of shallow channels in the sand to which the well-known terms "sows" and "pigs" are given, and is allowed to cool and solidify there. From constant association the men in charge can, I was told, forecast very exactly the composition of the iron merely from its appearance when run out of the blast furnace.



Art and the common postcard in Switzerland. In England money will not buy this, or anything remotely as good.

★

The rest of the processes take place under cover in some of the largest sheds I have ever seen. We followed the ladle which, in the course of its journey, cools down considerably, so that its contents have to be reheated in what is known as a mixing furnace. By the time it arrived there, there was only a sullen red glow with blue flames playing round the top to tell of its state, but when it was hoisted and poured by means of a duct into the mixer, a complete Brock's benefit would not suffice to indicate the cascade of scintillating particles that played round and about the operation. I was not lucky enough to see the tapping of a steel furnace, but was told that what I had seen was nothing to it. I am quite ready to believe it, as, skipping that particular phase, I was shortly led along an avenue of ten-ton steel ingots in process of cooling, and, although many of them had ceased altogether to glow, others were just purple, while some remained at a bright-red heat, I began to wonder whether I should arrive at its end with clothes and skin unscorched.

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The ingots are cast in slightly tapering obelisks with a couple of ears at the top for the engagement of the hooks of the hoisting cranes by which they are moved about. Preparatory to rolling, the ingots are again brought up to white heat in gas-fired furnaces. When ready, they are picked up by a travelling crane and run the length of the shed to the first rolling mill. On being dropped into the cradle the ingot is caused to travel forward over a series of rotating rollers and shortly arrives at a kind of gigantic mangle, again cooled with running water. Some twenty passes between the rollers, groaning with the pressure and occasionally stopping dead with the friction, suffice to reduce the steel to a flat slab. I guessed its dimensions to be something like 4 ins. thick, 3 ft. wide and 20 ft. long. The steel is still white hot. It then passes beneath the jaws of a guillotine which cuts it into shorter slabs, the length of which is the desired width of the finished sheet. More rollers, nicely calculated to give it the exact impetus required, send it travelling along to a waiting truck.

★

Quickly this carriage travels across the shed to the second rolling mill, where much the same process is repeated, save that after a couple of passes an ingenious arrangement of rollers swings the flat plate round through an angle of 90°, so that the latter rollings cross the grain of the previous ones. For an instant, too, a hose of water is directed on to it, and this removes scale, etc., leaving it to all appearance as hot as ever. The final dimensions of the plates I saw in manufacture were something like 6 ft. wide by 60 ft. long by $\frac{5}{8}$ in. thick, but in most cases these were to be cut to shorter lengths, and this is done cold.

★

There is much depression in the Black North. There were 11,000 unemployed in Middlesbrough alone, and though in normal times it is a wonderful sight to come in from the sea at night, the whole landscape being lit up with the glow from the blast furnaces, only a few are at present working; and it is a costly business letting out a blast furnace, since the whole of the refractory brick lining has to be reconstructed.

ASTRAGAL



A general view of the new offices, with the older fire station in the foreground. The buildings are set back from the west side of the Brighton Road ; the forecourt has a concrete carriage drive embracing a grass plot.

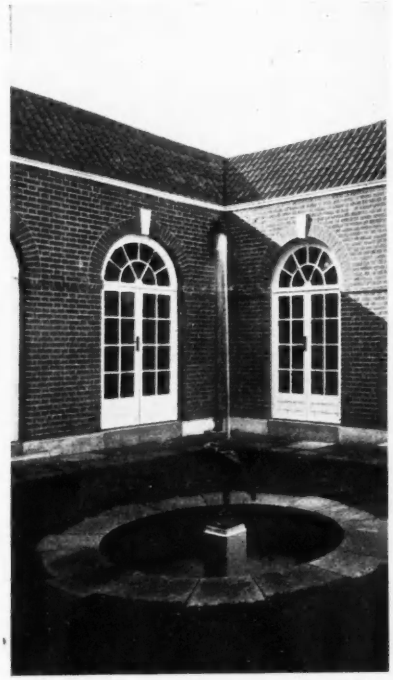
COULSDON AND PURLEY U.D.C. OFFICES

DESIGNED BY NICHOLLS AND HUGHES

ON Tuesday of next week, November 4, the Lord Mayor of London will formally open the new offices for the Coulsdon and Purley Urban District Council. The buildings, designed in free Georgian style, have been erected in red brick and stone on the gravel pit site, opposite Old Lodge Lane, and adjoining the new fire station. The main entrances are placed on the front to the Brighton road, from which they are approached by a concrete roadway in which is set a grass lawn.

The principal feature is the portico, which is carried up to the full height of the building, and embraces Ionic columns supporting an entablature and pediment. At the top of a broad, shallow flight of steps, three pairs of arched doors admit to the entrance hall, 29 ft. by 23 ft., which is paved with San Stefano marble tiles and has the walls divided by pilasters into bays with semicircular arches on all four sides. Both walls and woodwork are finished pale buff. The main staircase on the right of the entrance hall is constructed in three easy square flights and leads to the crush hall on the first floor, whence three small balconies, with iron railings, overlook the forecourt.

The council chamber, the principal room in the building, approached from the crush hall, is 44 ft. by 27 ft. Its walls are panelled to a height of 12 ft. in wainscot oak. The wagon ceiling has panels of richly-moulded plaster work and is whitewashed. Two committee rooms are placed at either end of the council chamber and communicate with it by means of large double sliding doors, which form part of the panelling and, when slid back, form a spacious apartment.

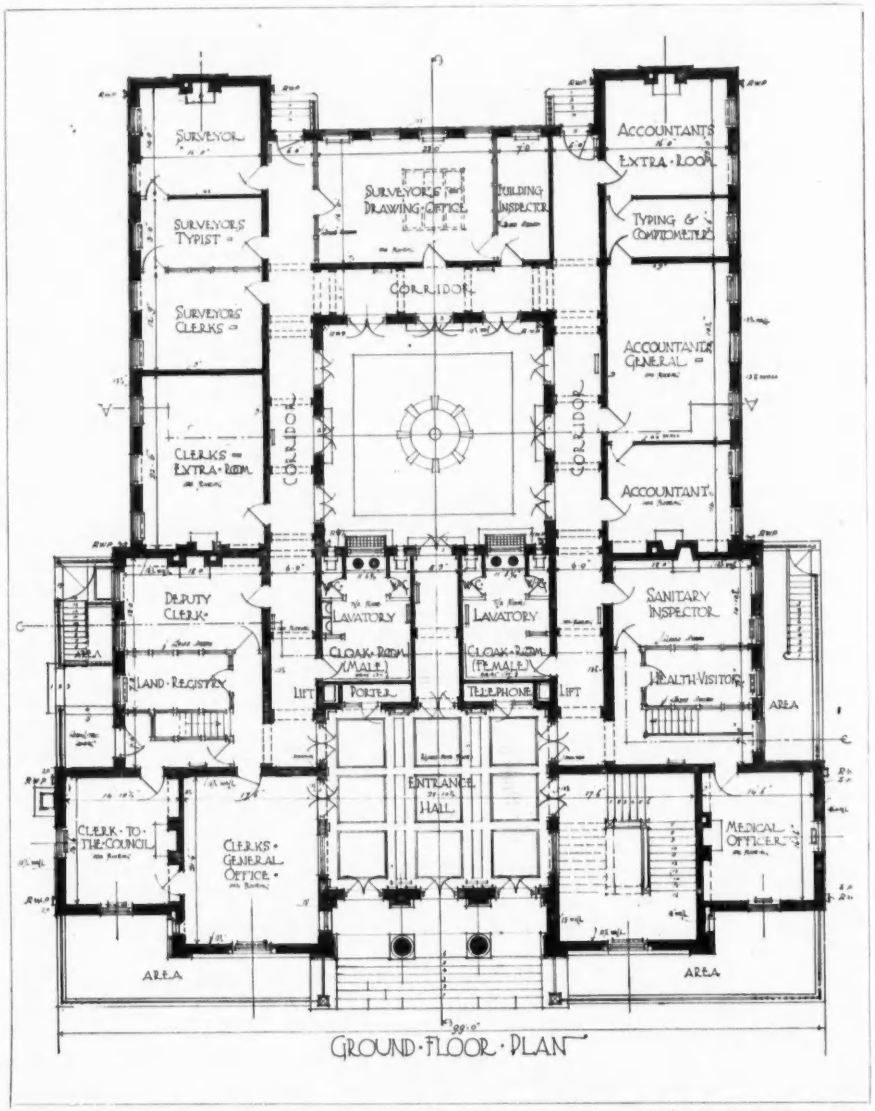


The fountain in the garden court, which is seen at the end of a corridor with vaulted ceiling when looking across the entrance hall from the central entrance door, was presented by the past and present women councillors.

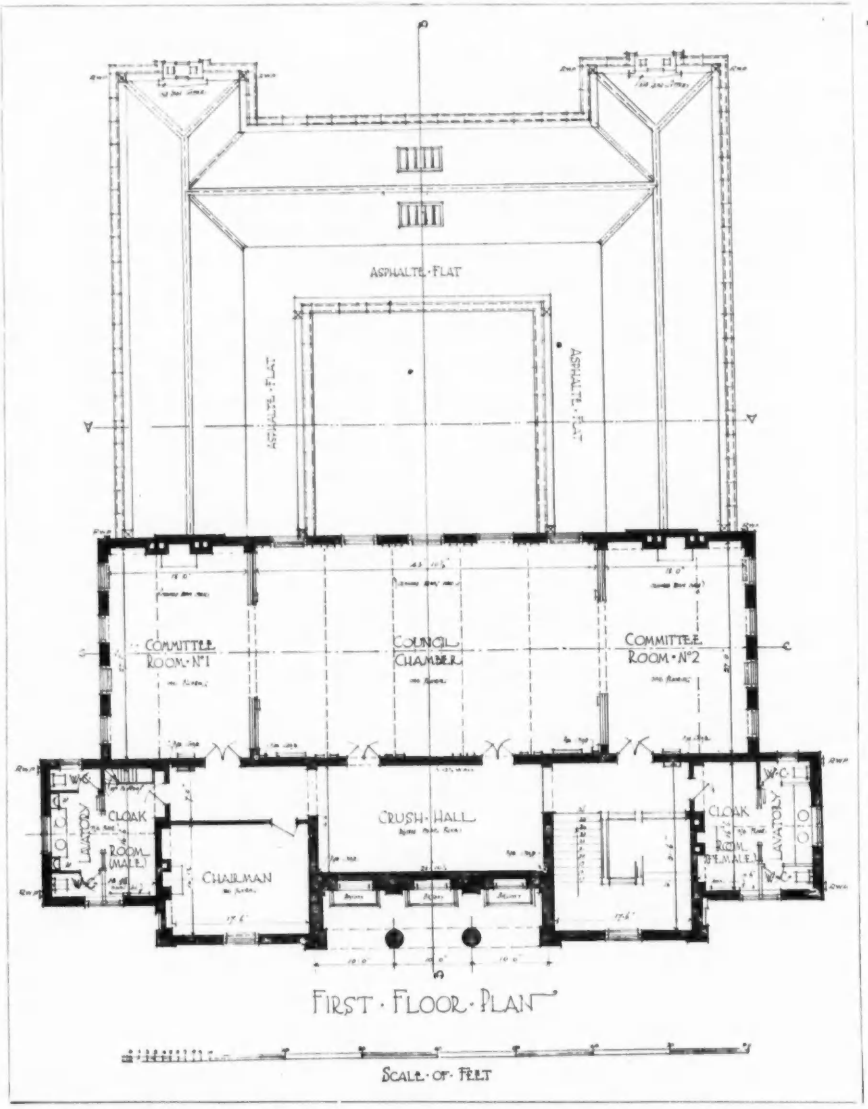
The principal departmental offices are on the ground floor. They are arranged on three sides of a rectangular garden court and are all approached by one continuous corridor around the garden court, both ends of which are connected to the entrance hall. This arrangement provides for easy intercommunication between all departments. Connecting corridors are provided to allow for future extensions to be carried out at the back of the site, where there is ample room for them, without disturbing the present building. A vista of the garden court with its central fountain is obtained from the entrance hall, from which a corridor with vaulted ceiling leads to the court, where a circular pool is surrounded by grass and stone paving.

Additional offices, stores, strong rooms, heating chamber and canteen are on the lower ground floor, a lift connecting the last-named direct to one of the committee rooms.

Two impressions remain after inspection of these buildings : the abundant light enjoyed by every room in them; and the harmony of the scheme of decoration. The tones of the walls run through various shades of buff to pale cinnamon, and so lead to the warm brown of the council chamber panelling.



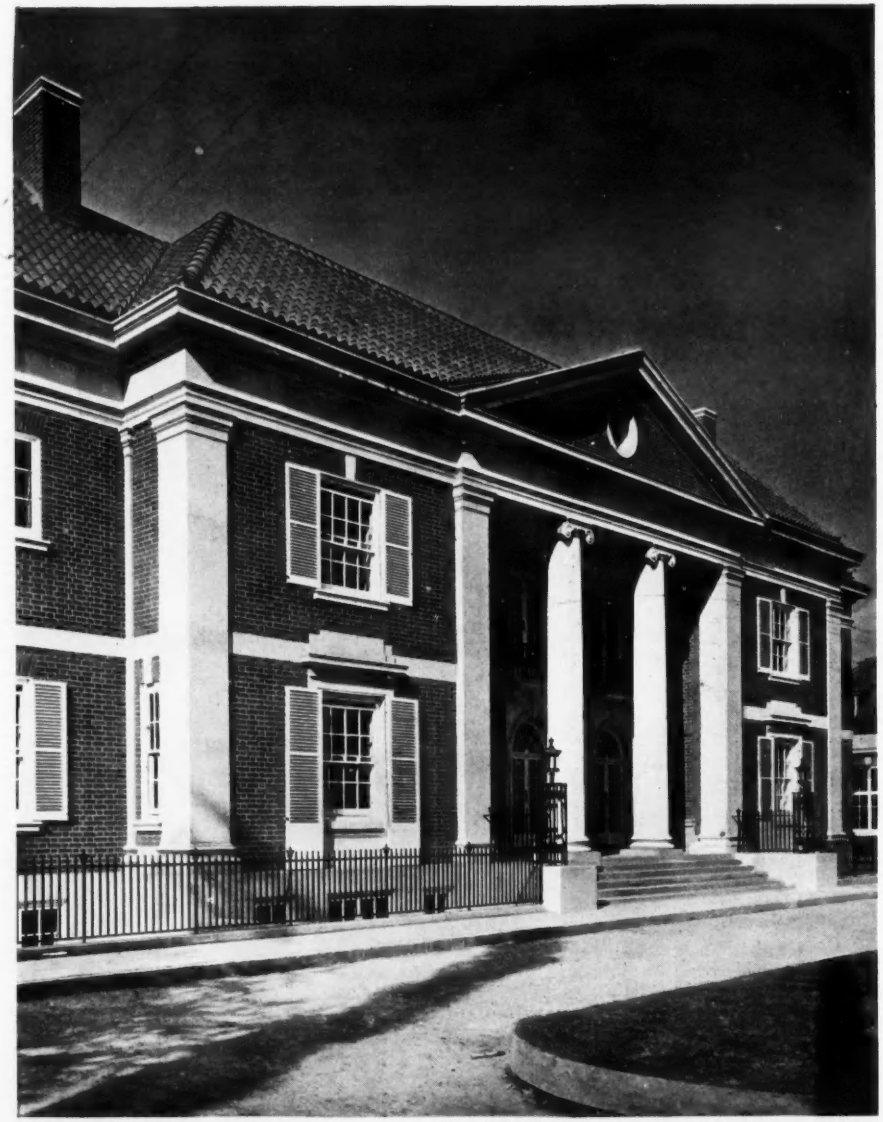
The ground-floor plan. The layout centres about the garden court, the principal offices being served by corridors running on either side of and behind it. Subsidiary offices and store-rooms are placed in the basement.



The first-floor plan. Here the feature is the council chamber, with a committee-room at either end; the three rooms can be thrown into one by sliding back the pairs of dividing doors. The crush hall has three small balconies.

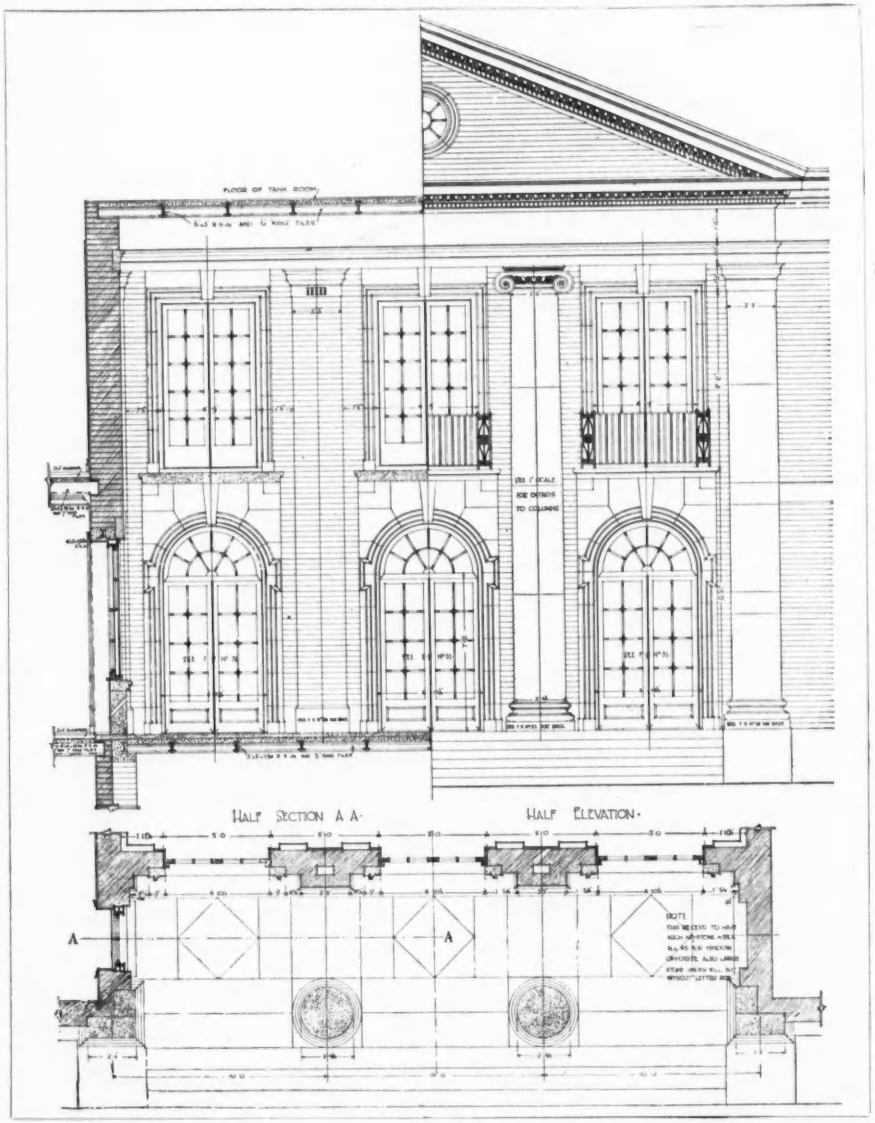
are placed in the basement.

crush hall has three small balconies.



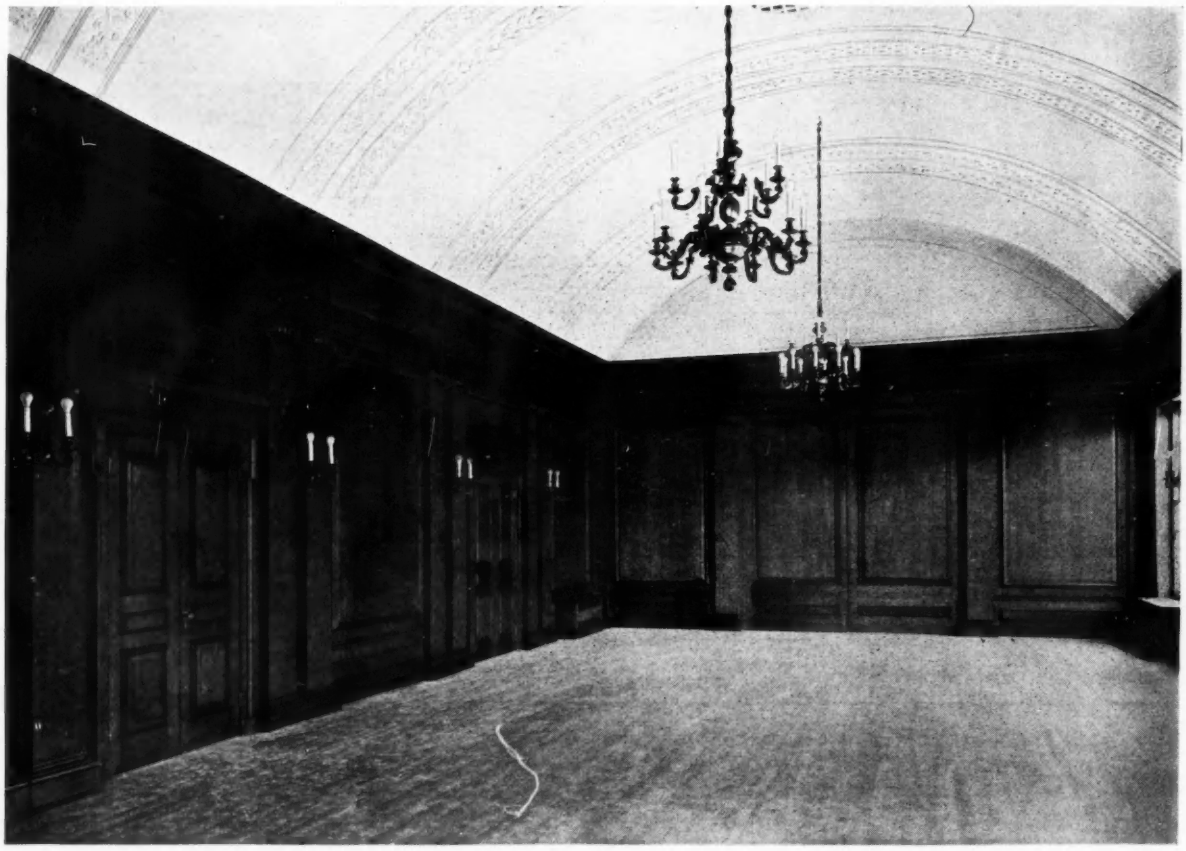
Coulsdon and Purley U.D.C. Offices.]

A broad flight of steps leads up within the stone portico, and three pairs of arched glazed doors give access to the main entrance hall. The main walls of the building are of bright-red brick, and the railings and ironwork of the three first-floor balconies are painted black.

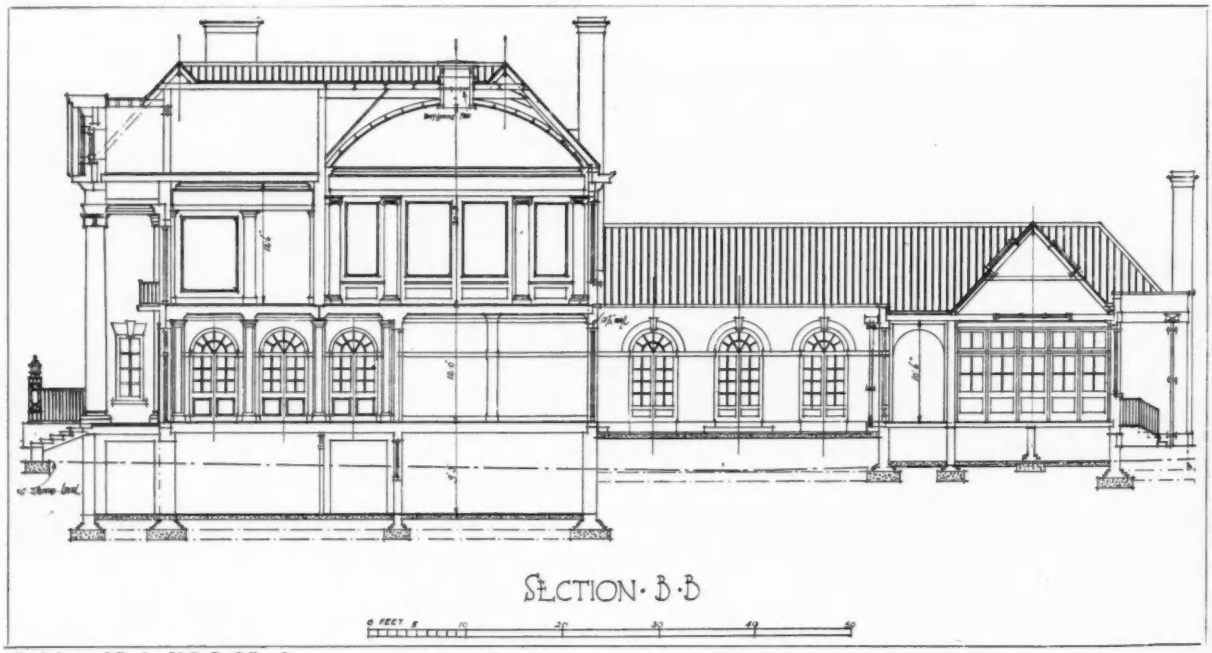


[*By Nicholls and Hughes.*

A reproduction of the architects' half-inch detail drawing of half-section and half-elevation, with plans of the columned main entrance, which extends the height of the building. The Ionic columns support an entablature and pediment with small eye-window.

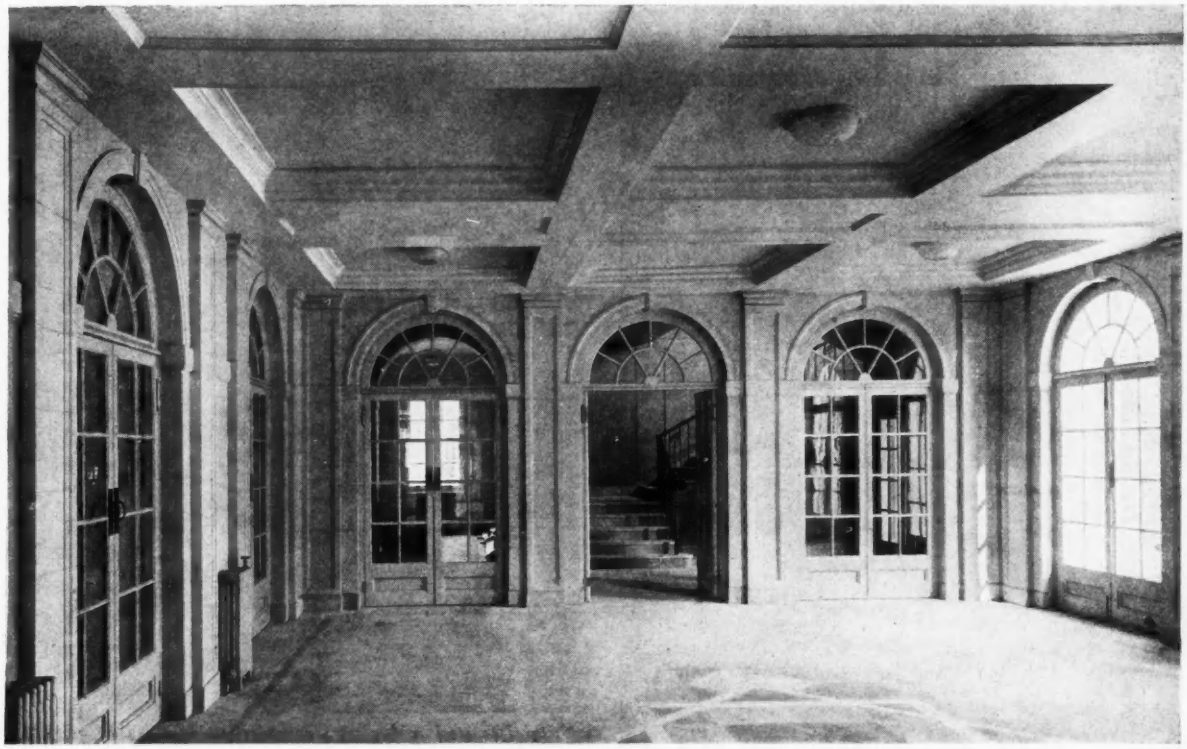


A general view of the council chamber, looking towards one of the committee-rooms; the two central panels of the dividing partition can be slid back. The oak wainscot, 12 ft. high, is of a warm brown colour, and the whitewashed wagon ceiling has moulded panels. The electroliers are in smoky copper, highly polished.



Coulsdon and Purley U.D.C. Offices.]

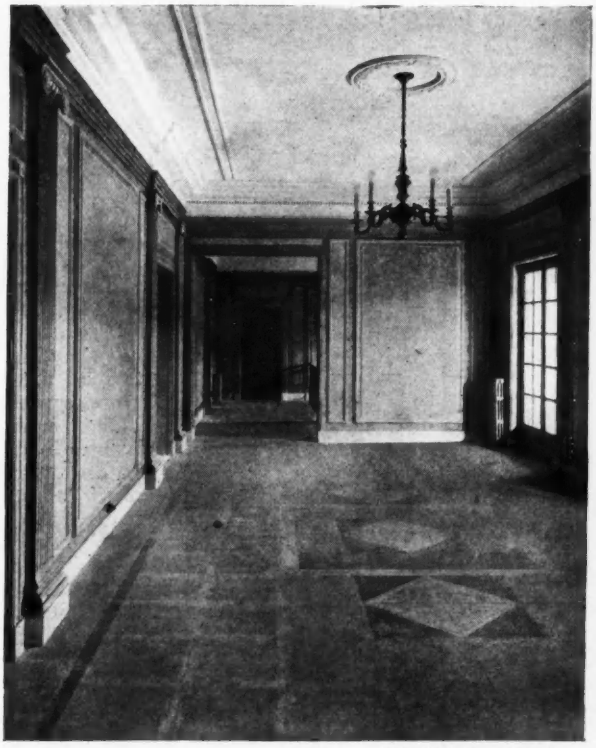
A section on the centre-line at right angles to the main front. On the first floor are shown crush hall and council chamber; on the ground, entrance hall, corridor, garden court, transverse corridor and drawing office.



The entrance hall, looking towards the main staircase, which is contained in a lobby to the right as one enters the building. The floor is paved with San Stefano marble tiles, and all four walls have pilastered treatment with semicircular arches above. Scumbled glaze gives a uniform pale buff finish to walls and woodwork.

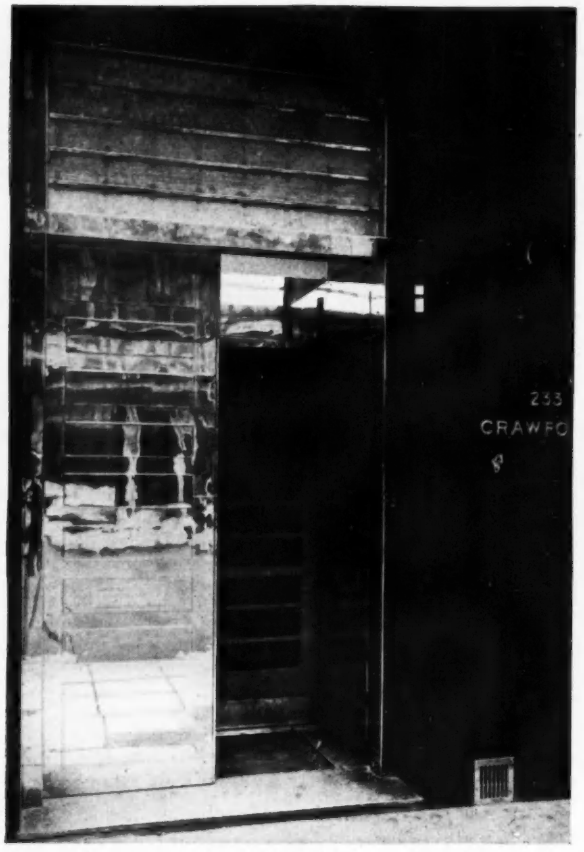


The main staircase has three shallow square flights, leading to the crush hall. The balustrade is of brass, with mottled bright and dark finish.

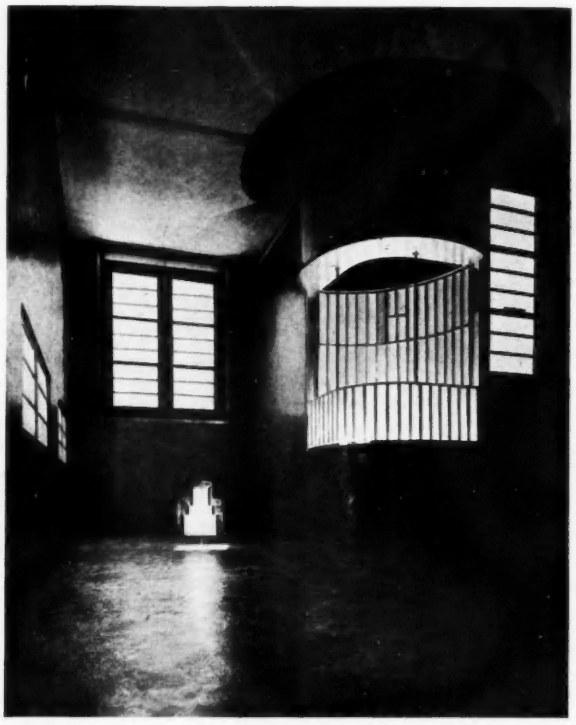


[By Nicholls and Hughes.

The crush hall, on the first floor. The same variety of scumbled finish is used here, but with several tones, ranging between buff and pale cinnamon.



The main entrance, from High Holborn. The base of the building is faced with black marble ; the door is of stainless steel.



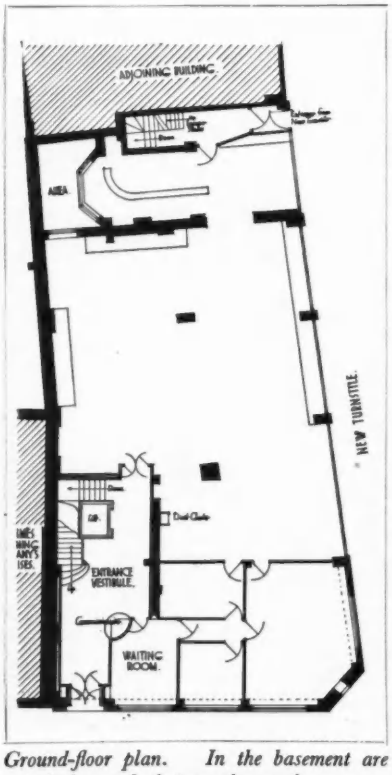
Stainless steel and glass : commissionaire's box in vestibule.

NUMBER 233

My New Building

BY SIR WILLIAM

F. Etchells and H. A. Welch

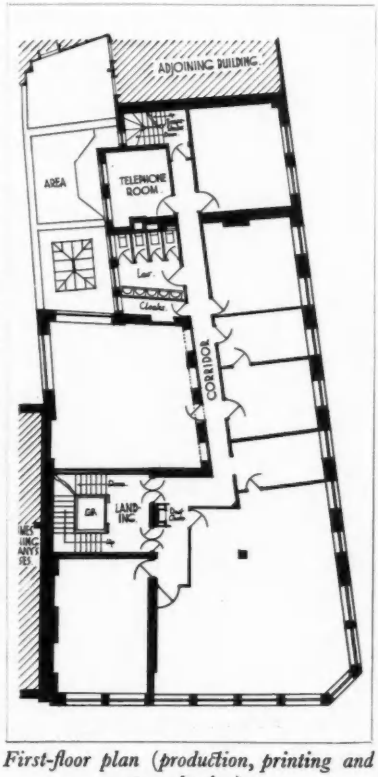


Ground-floor plan. In the basement are printing and photography services, etc.

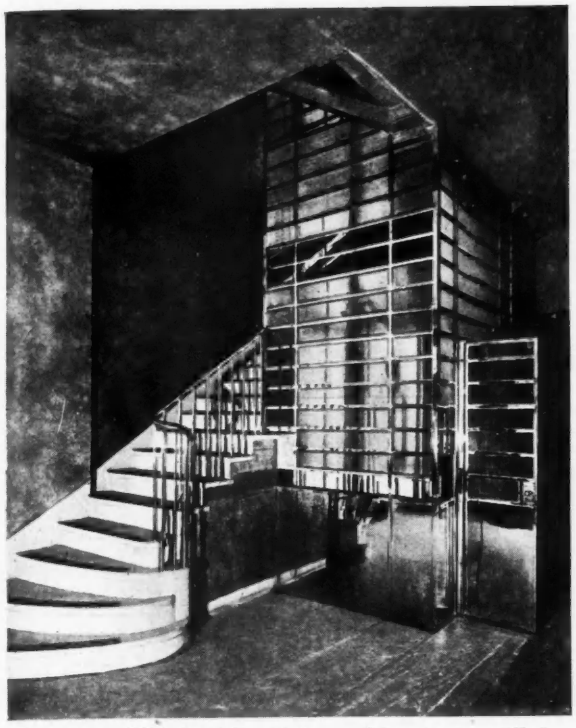
I HAVE built a modern building for my business—and they ask me why. They all ask me; all the business men who visit me. They come in from outside and shake my hand and say, "Well! So this is the new Crawford's! It is beautiful; and it is tremendously *modern*, isn't it? *And* inside! Now, tell me why . . .?"

As if there were any need to say why! I wanted a building for my business. I wanted a building evolved from the needs of my business. I wanted light and air; the brightness of freely-admitted sunshine; cleanliness; comfortable temperatures; the freedom from obtrusive trivialities which induces, because it symbolizes, the business man's ideal state of mind. And I wanted the design, the choice of material—everything—to be subordinated to these simple and obvious requirements. Because, in the past, the big business offices have been designed arbitrarily, to conform to this or that æsthetic convention, instead of functionally, the new Crawford's is unusual. The logically obvious is too often unusual.

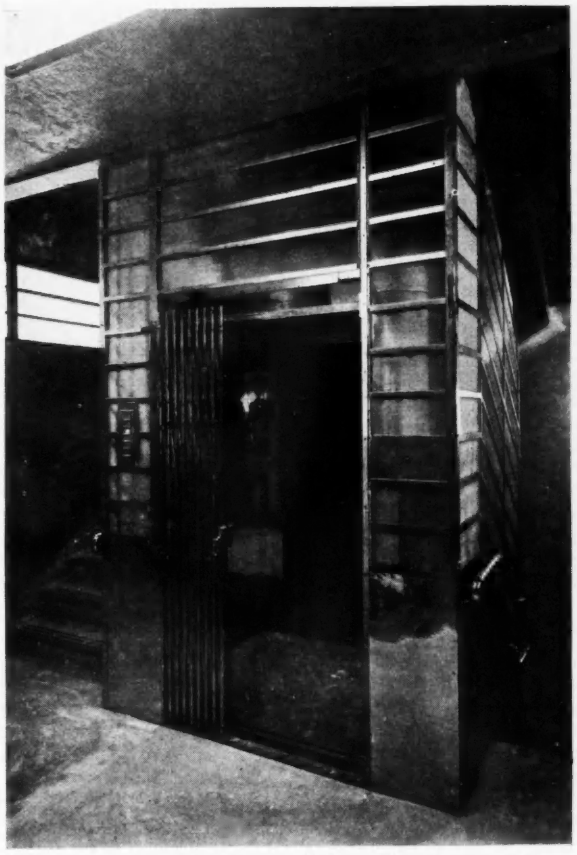
I have heard—and read—that my building is Teutonic. It is not. An English architect—Frederick Etchells—designed the façade and many of the special internal features. His ideas



First-floor plan (production, printing and space buying).



Staircase and lift, fitted in stainless steel in entrance vestibule.



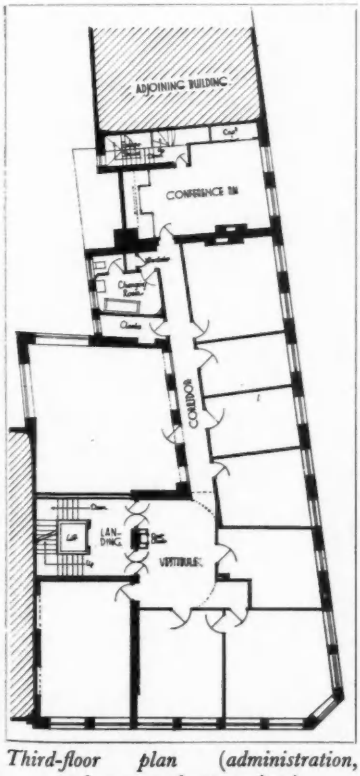
The lift from an upper floor vestibule. The entrance vestibule and staircase are bright green; the offices, etc., grey and cream.

HIGH HOLBORN

is of the Present

Associated Architects

CRAWFORD, K.B.E.

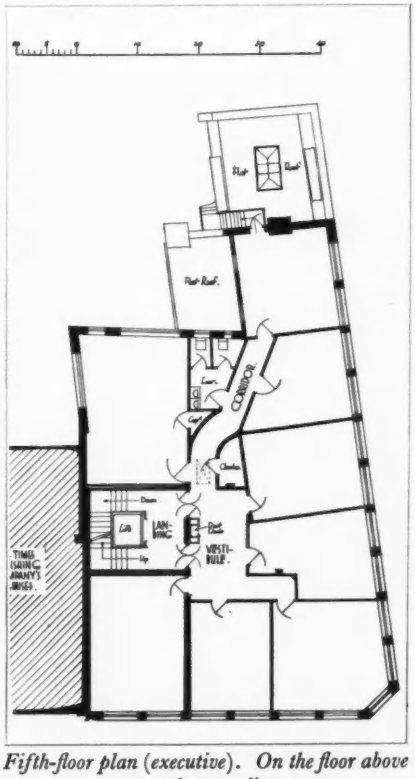


Third-floor plan (administration, conference, and copy writers).

are English—as English as the steel and the concrete into which we translated them. Mr. Herbert Welch, also an Englishman, planned and created many new internal features, and was responsible for the whole of the fabric. My offices, built round a modern English business, are modern English. But the attitude towards building that the new Crawford's typifies is not English; it is not German, though Berlin may, for the moment, lead; it is a world-wide attitude.

In every civilized country men are beginning to build for today, instead of building to the accepted standards of yesterday. It is a clean break with tradition; a substitution of honesty for sentimentality; and it has made, as innovation must always make, its enemies. "You are ahead of your time," people say—as they have always said and will always say. "You are trying to live in the future—and the future, at present, does not exist." But I, for one, make no attempt to live in a problematical future. I live, as my advertising business must live, in the present—and not a moment behind it. My new building is of the present—a product of present-day thought applied to present-day materials.

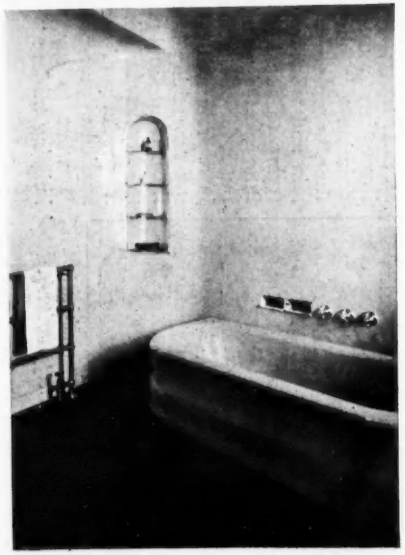
I want to say this to the British building trades: "You are living, too



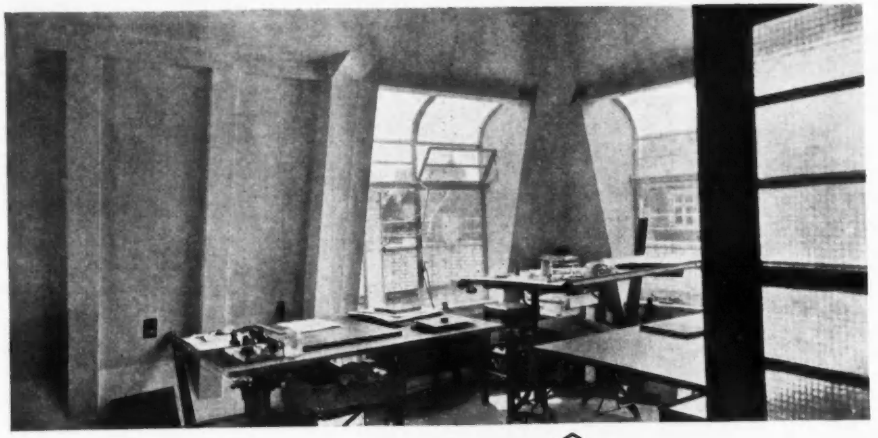
Fifth-floor plan (executive). On the floor above are three studios.

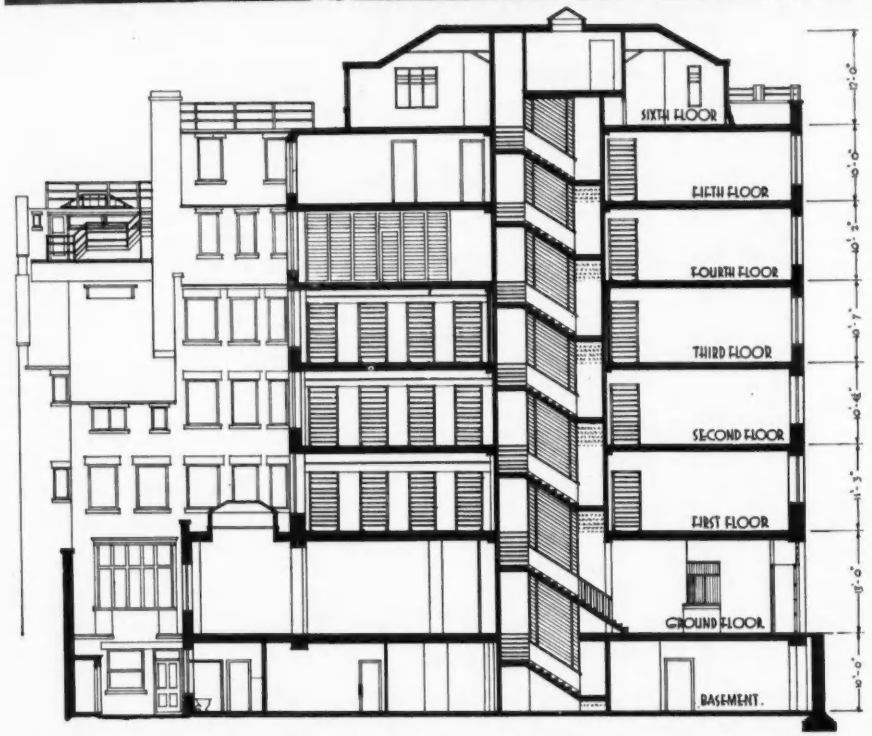


The waiting room, ground floor.



Bath in changing room, third floor.

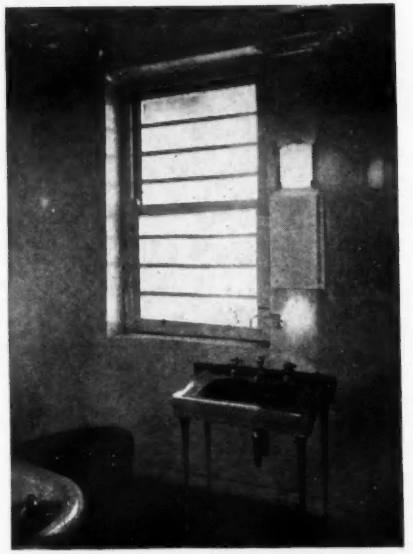




The drawing office on the sixth floor; and the architects' sectional drawing of the building.



A typical upper floor corridor.

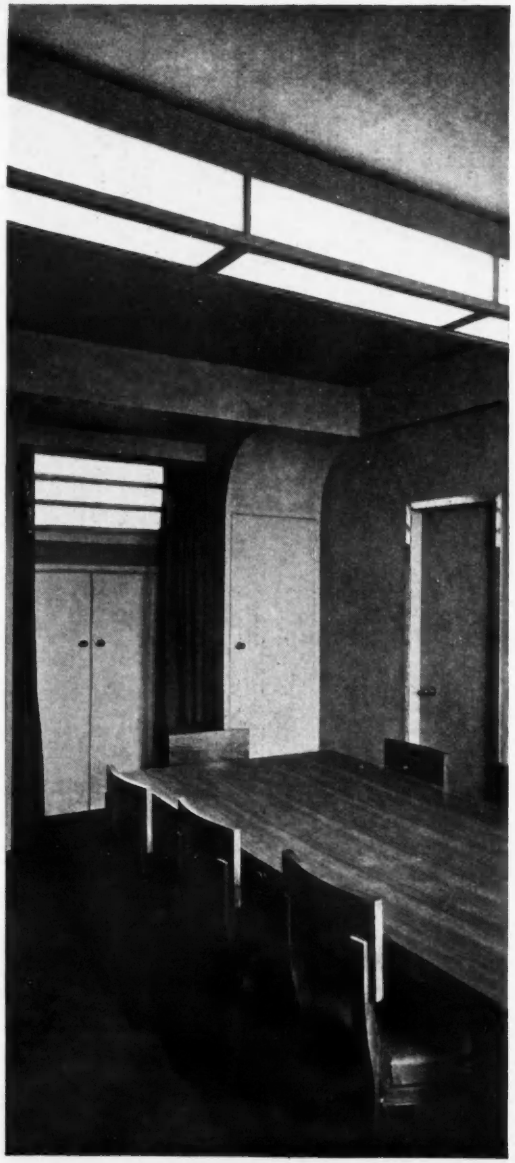


Another view in the changing room.

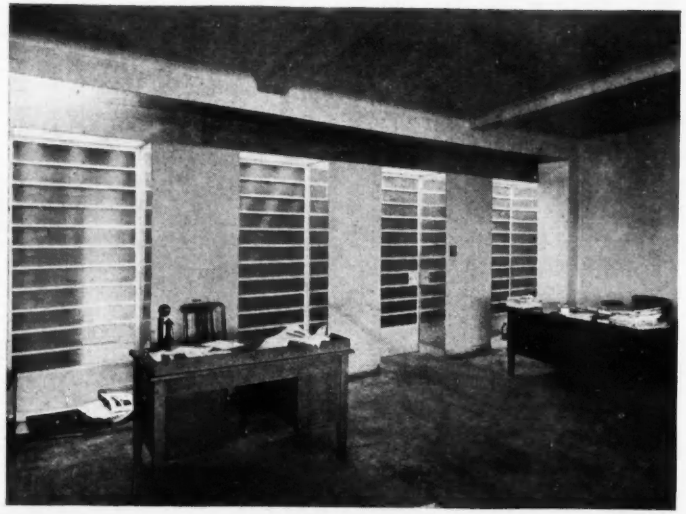
Bath in changing room, third floor.

The drawing office on the sixth floor; and the architects' sectional drawing of the building.

Another view in the changing room.



A corner of the large committee room, third floor.

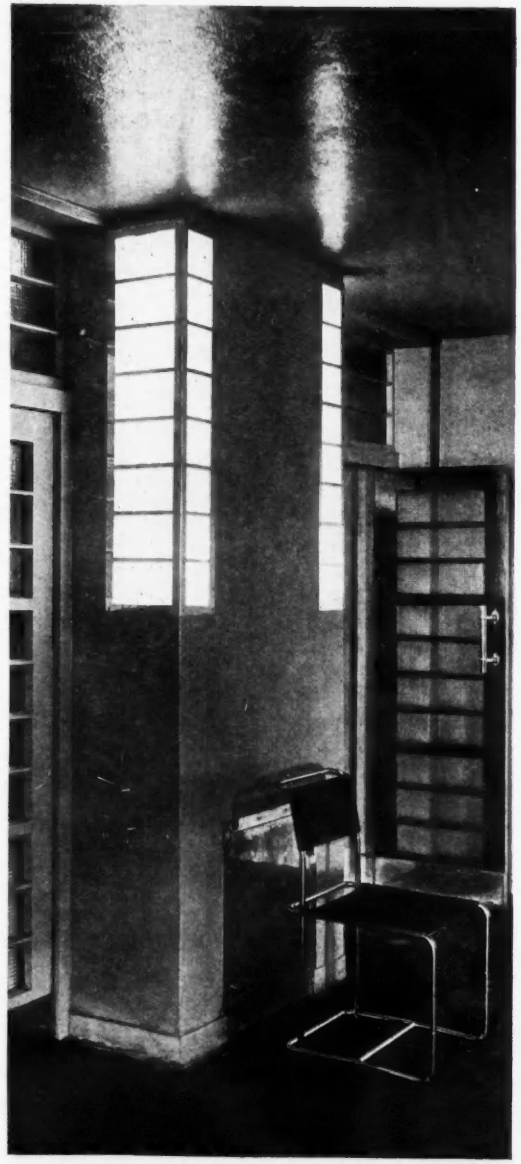


A typical office on the upper floors.



No. 233 High Holborn, London. [*F. Etchells and H. A. Welch, associated architects.*

The small conference room, third floor.



A landing, showing centrally placed dust chute.

many of you, in the past." This modern trend, this deliberate turning of architecture towards new forms, new methods, new material, is your opportunity. You ought, in your own interests, to be fostering this movement. The universal application of this new conception of building, the universal appreciation of this new beauty—a beauty resulting from honest functional design, like the beauty of a liner or an aeroplane—is inevitable. Nothing can stop it. But much can be done to hasten it. And the building trades can help to hasten it.

They have, in the advertisement pages of the building and architectural press, a means ready to hand. It is in these pages that architects see the raw material of their dreams. What shall they be shown? It depends on the building trades. I know how I, in similar circumstances, should use this means of propaganda. I should preach, week in, week out, the gospel of revolution; and I should leave no doubt in any mind that I, better than any foreign competitor, was prepared and competent to supply the building revolutionaries' munitions — modern building materials!

Our architectural press is among the leaders of professional and trade publications. The advertisement pages should be more extensively used by all manufacturers and makers to tell the story of their productions to the architects and builders.

There is no power in industry so great today as the power of the well-conceived advertising campaign.

If demand is to increase, then manufacturers must grasp boldly this modern instrument of advertising.

NEW WAYS IN ARCHITECTURE

BY HUGH MACINTOSH

The author thinks it is one of the most encouraging signs of the times that there is a growing public interest in, and appreciation of, architecture. The lecture he delivered at the Town Hall, Croydon, last week, from which the following summary has been prepared, was addressed to the general public, and it is a significant fact that his audience filled the hall and obviously listened with interest.

IT is evident today that a new kind of building is emerging. Differences between this new style and the older traditional styles are radical and marked. In this country, since the time of Inigo Jones, the design of large buildings, other than Gothic churches and cathedrals, has been based, broadly speaking, on what is known as Classical Architecture. This style of design has as its first raw material proportion of mass: the incorporation in the design, with endless variations in individual treatment, of the column, in its three great orders embracing pedestal, base, shaft, capitol, architrave, frieze and cornice, together with the pediment, the plinth, the attic, the lintol and the arch. All these features and others were and are used under the influence of tradition. Even in buildings where the more ornate features could not be afforded, the basis of the design lay back in the same traditions. Great architects arose again and again, giving fresh interpretations, individual renderings. Yet we can say that although they by their genius discovered new harmonies they played on the old scale.

Today a distinctly different range of notes is struck, a new sound is produced. We have heard nothing quite like it. We are not certain whether all these novel combinations of sound are harmonies or discords. I have used the simile of music, because identically the same phenomena have arisen in that realm — Stravinsky, Bartók, Scriabin. What do they mean? Do they mean anything?

Take also sculpture. Epstein, save for a few wonderful exceptions, staggers his contemporaries into speechless rage or doubts of their own sanity. Frank Dobson, Henry Moore and others on occasion join in what the public is sometimes tempted to think a rather ponderous and expensive joke. And yet these men have a great deal to say quite seriously, for themselves in particular and for art in general.

One phase of these modern conditions has had and is having its effect upon architecture precisely as it has had and is having its effect upon the arts of music and sculpture. What is that phase? It is a mental condition. How did it arise and what are its characteristics?

I am not going to put the modern mentality down to the war. The war merely marked and precipitated the end of an age, speeding up a process already advanced. It *smashed* suddenly what was already crumbling. What was crumbling? I answer: tradition. A new world, immensely larger, was already in process of birth. The modern eyes saw farther—backwards to the origin of things; outwards to the farthest stars; onwards to ever-fresh conquests of science. The modern man found himself moving with incredible rapidity, utilizing inventions to accomplish more in a month than his grandfather could overtake in six.

I say the modern man, because one feature of the new world was the swift and widespread dissemination of ideas and advantages. All classes of the community began to share in what previously had been the freehold of the favoured few. And the process of adjusting the old to this sudden new environment and life became increasingly difficult—to many minds impossible, or, at any rate, not worth while. The traditionalists say to me: You ought to finish your wall with a cornice. I say: There is no ought about it. I finish my wall by stopping where I want to, slick and clean, with none of your meaningless fuss. What, anyway, is the *use* of it? This modern school of thought has its champions—le Corbusier in France, Bruno Taut and Mendelsohn in Germany, and many others.

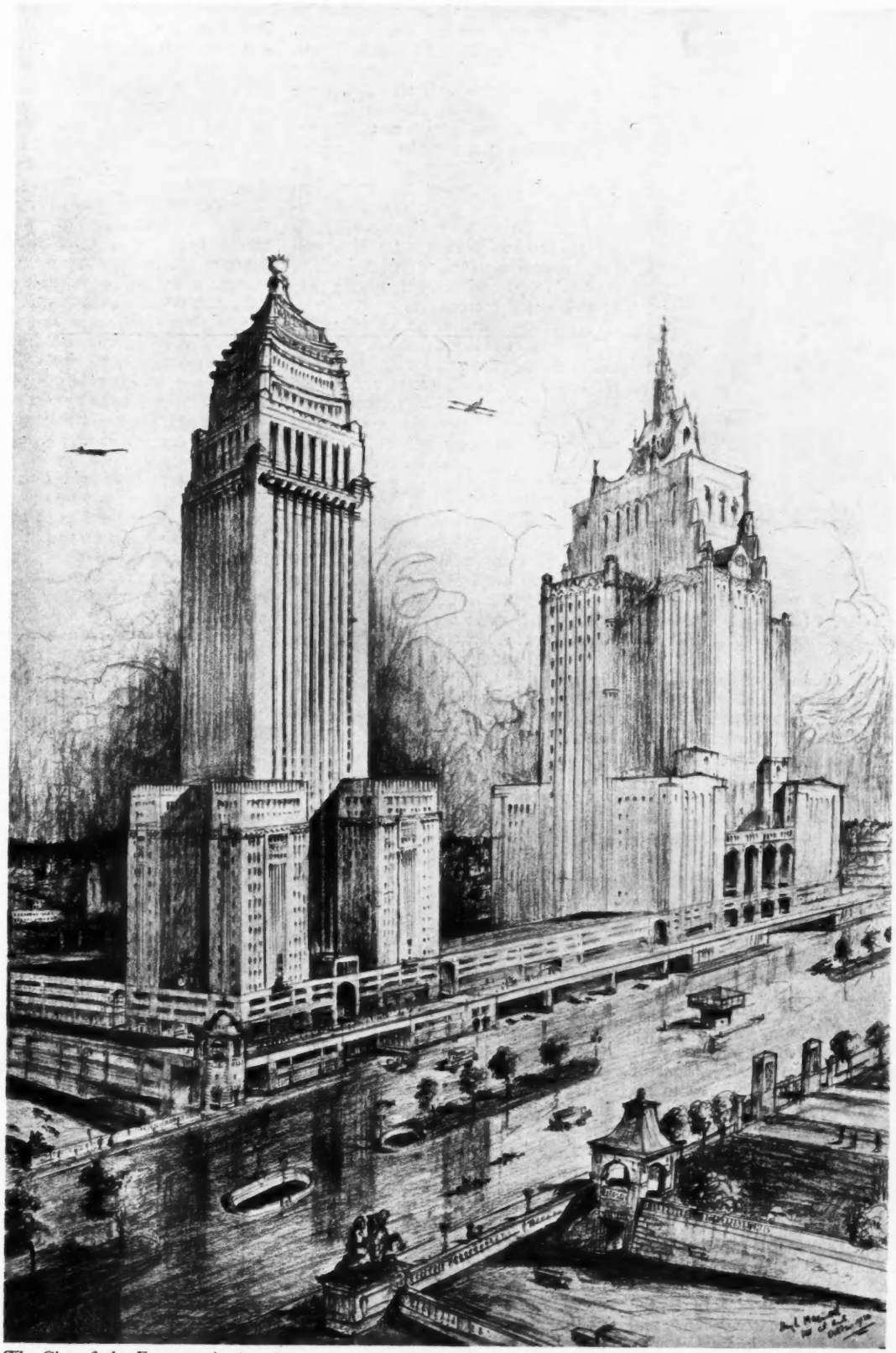
They insist that the modern architect, instead of going to Rome or Greece for inspiration, should turn rather to the aeroplane, the motor-car, the dynamo. There you have products of the human mind, untrammelled owing to the nature of the case by tradition, for there are no traditions.

So they approach the designing of a building. What is it? Essentially a box in which human beings live. The earth for a bottom, the roof for a lid. Apertures in the sides to admit light and air and permit egress and ingress. Inside the box, human beings carry on the functions of eating, drinking, sleeping and the necessary corollaries to these occupations. The interior of the box must be considered as a machine. Everything in it must first of all be designed in terms of life efficiency.

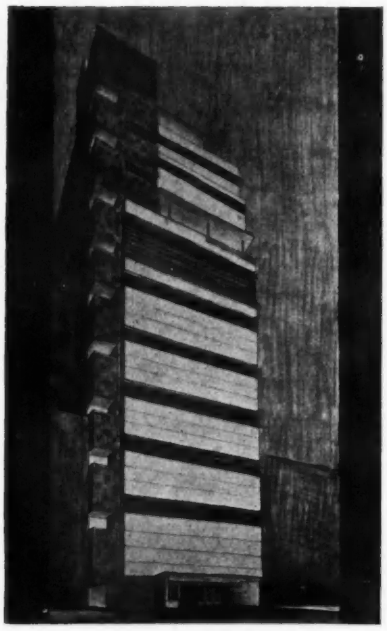
One factor, particularly on the Continent, has greatly helped this movement. That is poverty. It has been economically necessary to simplify and to standardize, and if you standardize it is essential to consider first the greatest common good according to the current conception of what is the greatest common good.

Some of the results of this new approach to design have been good. For buildings serving modern uses—such as the vast modern store or the modern factory — both having no ancient traditions behind them, and both being in their essence of the nature of machinery—the new view is possibly the right view, and out of it good architecture will come.

As to the house, I am not sure. Family life is not entirely mechanical. A man admittedly does not live on the outside of his house, but there is a



The City of the Future. An imaginative sketch by Hugh Macintosh. "I imagine a city . . . with your shopping centres above and away from traffic; immediately under, your business, professional and administrative population; and, at street level, warehouses. Churches, halls and meeting-places can occupy the topmost stories."



Preliminary study for a Museum of Modern Art, New York. "The purposes intended could have been attained less blatantly, more politely, with greater decency and consideration."

personal satisfaction in presenting something more than a bold and unadorned, even naked, front to one's neighbours. And in the beautiful traditions that cling around the British home, there is something we ought not to surrender.

Between old and new there will, however, be something of a fight, the end—let us hope—being the absorption of a sane simplicity and honesty from this new domestic architecture, combined with the best elements of the old.

What I have said is, I hope, fair to some of the best aspects of the new architecture for which there appears to be a future of usefulness, but there is —I venture to suggest—no future for certain developments based, it seems to me, on affectation, blatantly displaying the new merely because it is new, and apart from considerations of efficiency, going out of its way to fly in the face of conventions which, after all, are the foundations of good breeding.

A design for a Museum of Modern Art in New York (reproduced on this page) has been copied from a photograph just received from America by my friend, Mr. Cyril Spackman, to whom I am indebted for it. What it means I don't know. That it is intensely ugly I do know, and that the purposes intended could have been attained less blatantly, more politely, with greater decency and consideration, I also know. For a museum of art is a kind of building with great and honourable traditions. "Modern" art is a thing of a day and nothing more, *unless* it has at least some reverence and respect for the past. I am under the impression that Titian will, in spite of all, outlive some of our modern jazz-cubists. I will not, however, believe that all modern art can descend to so low a level as to deserve the perdition of having to be hung on the walls of this architectural nightmare. Dante never glimpsed an infernal palace of proportions so outrageous. There is an element of revolt in the modern movement which will have, sooner or later, to adjust itself to reality. And reality contains the past as well as the present.

I must now turn to the second phase of modern conditions as they affect architectural design. This phase is physical. It is concerned with materials—increased confidence born of experience in the use of steel and reinforced concrete; greater precision and uniformity in manufacture, giving a greater factor of safety in mathematical calculations of strains and stresses; the evolution and perfecting of the lift and the escalator; the more perfect approximation of artificial lighting to daylight; more efficient systems of ventilation, heating and engineering services generally.

I will deal first with reinforced concrete and steel construction apart from particularly lofty buildings. The effects of these methods of construction have been most interesting. Designers have been driven back—because of the elimination of the arch—to earlier styles. To the Greeks, to the Egyptians, who used the lintol. Sir John Burnet in this country was a pioneer. The first London building he executed in this manner was Koh-i-noor House in Kingsway. He and his partners have developed the same style, particularly in Adelaide House, London Bridge, and latest in *The Daily Telegraph* Office, Fleet Street.

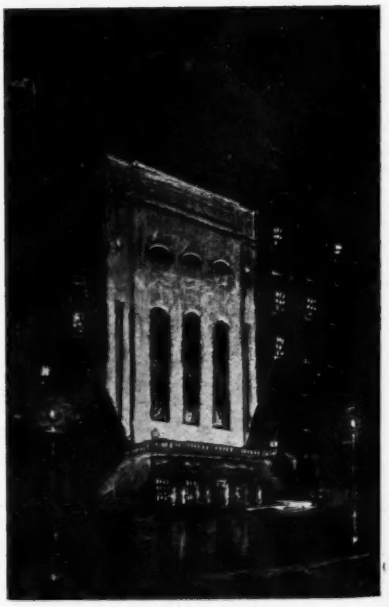
But more is happening by the use of reinforced concrete. Mendelsohn in Germany, in particular, is realizing buildings as plastic. The shape can be anything, governed solely by the idea of efficient use.

Just in passing let me refer to another interesting development arising out of the more perfect use of electric light externally. I have made a sketch (reproduced on this page) of an imaginary cinema front not unlike a very successful front in Whitehall. Now, here is a problem in design. These buildings are for night use principally. For effective flood-lighting plain white uninterrupted surfaces are best. You are flooding almost vertically. Imagine pediments, cornices, projections, casting meaningless blobs of black over your building. On the other hand, two little setbacks give two black bands: an effective picture in black and white.

Briefly I now deal with the lofty building, which, without doubt, has come to stay and is bound to have an increasing influence on town planning and the layout of future cities. The skyscraper is only possible by reason of the perfecting of the steel-framed building, by the perfecting of the elevator and the approximation of artificial lighting to daylight.

The drawing I have made for this subject (reproduced on page 657) shows two buildings of fifty stories, housing about 15,000 tenant population in each, 30,000 in the two. Consider the effect on the traffic problem. In a commercial community housed in such buildings two-thirds of the journeys are vertical instead of horizontal, and at the rate of 750 feet per minute. There is the untold advantage of concentration — personal contact between man and man, office and office.

I imagine a city laid out on these lines, with your shopping centres above and away from traffic; immediately under, your business, professional and administrative population; and, at street level, warehouses. Churches, halls and meeting-places can occupy the topmost stories. A building of fifty stories carries forty lifts. Each lift takes fourteen persons and can descend and ascend within two minutes—if you hustle. I can clear a congregation of 1,000 persons in five minutes from the fiftieth story, and if they have not enjoyed the sermon they have, at any rate, been breathing mountain air.



An imaginary cinema. "For flood-lighting plain white uninterrupted surfaces are best. . . . two little setbacks give two black bands: an effective picture in black and white."



ENGLISH PRECEDENT No. 139

HOUSE IN MAIN STREET, SITTINGBOURNE, KENT

This house is a peculiar mixture of finished and delicate detail, with features that are the descendants of earlier forms.

Both the doorway and the small three-light window over it just fail to hold their place between the heavier bays, and under the too heavy cornice. One is led to wonder whether the copy-books or the London joiner are in any way responsible for the finer parts of the design.

—[E. MAXWELL FRY]

LETTERS FROM READERS

A Form of Slow Death

SIR,—Your moving leading article on "A Form of Slow Death" has no doubt been read with great sympathy by many people, and I therefore venture to put forward two practical remedies that might well be worthy of the support of architects.

All must agree that in London and elsewhere basement dwellings are most undesirable. Will architects in the future try to persuade their clients *not* to erect any more buildings with living accommodation provided under the street level? In London some £60,000,000 has been or will be spent on housing, and yet buildings are being erected that may become slums in the next generation.

But the root difficulty in London is the lack of adequate control. Some 243,000 new dwellings have been provided by all sources in Greater London since the War, and yet overcrowding still exists. This is partly due to the fact that every day families are swarming into the Metropolitan District, and, in many cases, as soon as a family is removed to a new dwelling, the vacant rooms are inhabited again. If only health committees would co-operate more closely with housing committees and administer existing powers more rigorously, the present evil would be greatly diminished. A few London boroughs are tackling this problem bravely. They are clearing bad basements and preventing them again being occupied. If all medical officers of health in Greater London and their inspectors made fuller use of their opportunities, this appalling evil would be partially remedied.

B. S. TOWNROE

Official Architecture

SIR,—Were I able to write verse, and abusive verse withal, I should probably commence my effort, in reply to Mr. Owen, thus:

When I'm in the sere and yellow,
And my faculties are dim,

and so on through the usual rhyming reiteration to the climax that, having reached this pleasant state of senility, I should be equipped to function as an official architect.

But, as I say, I am congenitally incapable of jerking abusive doggerel.

J. R. LEATHART

SIR,—I have followed with interest the correspondence which has arisen out of the debate upon the above. Viewing the subject impartially, it would appear that Mr. Leathart has mistaken the shadow for the substance, inasmuch as by giving central prominence to a misinterpreted extract from the context of Mr. Wynn Owen's case for official architecture, he has misled himself and probably others.

There was no "vitriolic attack" upon a "famous architect"; the case was, in my opinion, stated in logical and restrained terms throughout. In the analysis of most subjects, comparisons (though sometimes apparently odious) are necessary in order to arrive at a conclusion by a logical sequence of facts.

I may say that I attended the debate and, from my own observations, the delicacy of the situation arising out of the question of comparisons was fully appreciated by Mr. Wynn Owen, who stressed the fact that the comparisons were of works and not men.

HARRY HOLLAND

SIR,—I cannot agree with the attitude of "Business Man," as outlined in his letter which appears in your issue for October 8.

His suggestion that we should seek the services of architects in the cheapest market does not appear to me to be good business. Perhaps he means in the best market, but that is not quite the same thing.

The architecture of a business building should surely seek to proclaim the dignity of the business housed therein, and where the "official" architect cannot supply this, and one at the figure quoted by your correspondent probably could not, it would be money well spent to secure the services of a man with the ability to do so.

The staff architect whom "Business Man" appears to have in mind would, without doubt, be commanding a much higher salary if he could give the better work both in planning and design of elevation which are considered necessary for progressive concerns.

ISIDORE SALMON
(J. LYONS & CO., LTD.)

The Architects' Golden Opportunity

SIR,—If in the leading article published in your issue of October 1 I have said anything that might be read as disparaging the efforts of Letchworth to create a new type of garden-town, making it suffer by comparison with its neighbour, Welwyn, I make haste to withdraw the offending remarks.

The whole trend of the article laid stress upon the return to questions of purely urban planning, tracing the gradual evolution of garden village, and suburb planning, through Letchworth and Welwyn back to the great towns. In so far as these towns forsook the principles of monumental city planning in favour of looser principles evolved out of their adoption of the best features of the English village they became *ipso facto* suburban instead of urban. The winning design for Birmingham Civic Centre was urban. The same can be said of Letchworth in only a limited degree.

YOUR LEADER WRITER

Scottish National Library

SIR,—In his admirable letter on the present architectural problems of the Scottish capital, Mr. Morton Shand has omitted to mention what has always seemed to me the clinching argument against the site on George IV Bridge for the National Library. It is a matter of available area. The site selected is 27,000 square feet in extent, compared with the 35,000 square feet of the projected public library in Manchester and the 70,000 square feet of the Welsh National Library. It is about one-half of the area of the public library in Boston, Massachusetts.

It must be borne in mind that, not only is it to be a national and not merely a municipal library, but that, as one of the four copyright libraries, it must find space for an enormous number of new books every year. And, as it happens, there is on the other, i.e. the east, side of the Parliament House a site available of 65,000 square feet with a contiguous 67,000 square feet which could later be brought into use. At the same time, one does not see why a building of such supreme national importance as this library should not have the finest available site in the city, and why, on the Calton site now saved from Mr. Lansbury, a superb expression in stone of Scotland's zeal for letters should not be built. After all, as compared with Wales, Scotland is £219,740 short of her quota of Government money for libraries, and at the present rate of progress will be £400,000 short in five years' time. She need not rely entirely then on Sir Alexander Grant's conditioned munificence.

GEORGE MALCOLM THOMSON

A New Housing Scheme

SIR,—My Federation is convinced that it is impossible for private enterprise to build houses to rent to tenants without financial assistance by means of subsidies and loans on mortgage. It is the opinion of the Committee that if the facilities outlined in a report, which has been submitted to the Government, are afforded to the members of the house-building industry, the houses for the working classes, apart from the housing of the very poor, can and will be provided very rapidly by private enterprise. The activities of the local authorities can then be curtailed strictly within the limits of rehousing slum dwellers and

providing living accommodation for those of the lower-paid working classes who may be described as the very poor.

Following are extracts from the report :

Subsidy schemes are still necessary because of the continued restriction of the rents of pre-war houses under the Rent Restriction Acts, and no real normal position can be attained until all restrictions are withdrawn and housing once again is a free and unfettered industry. The withdrawal of the restrictions might cause a very temporary inconvenience in some cases, but the adjustment of all rents to an economic basis would bring housing into its old position and would prove the most rapid and economical and efficient method of solving the housing problem of the country.

It is evident to the house builder that it is a practical proposition to build houses which are required by the working classes, given assistance which will not be greater than that now afforded to the local authorities; and if the recommendations of this report are adopted, it can be confidently asserted that houses will once again be provided by private enterprise and provided in adequate numbers, so that the expensive and unsuitable schemes of the local authorities may be discontinued and the acute overcrowding of the working-class districts of our great cities may become a thing of the past.

In drawing up the scheme, the Federation has had in mind the demand for small, comfortable houses containing two and three bedrooms, bath and all modern requirements, to be let at approximately 7s. 6d. to 9s. 6d. per week, excluding rates.

The scheme is as follows :

1 : Subsidy.—The full 1924 Act subsidy of £11 5s. per annum for forty years without liability of withdrawal on a sale to be available for houses built by private enterprise; or, alternatively, a lump sum subsidy of £100 per house. The lump sum subsidy of £100 is approximately equal to half the amount of the full 1924 Act subsidy.

2 : Rents.—The maximum rent to be fixed for the whole period of the yearly subsidy, or where lump sum is granted to be fixed for five years, after which the house to be free from restrictions.

3 : Density.—A density of twenty to the acre to be allowed. The measurements to include all roads and adjoining open spaces.

4 : Roads.—Where wider roads or more expensive specifications than those of the town-planning roads provided in the model clauses and the local town-planning schemes are required, the extra cost to be defrayed by the public authority.

5 : Blocks.—Rows or blocks of eight houses to be allowed.

6 : Loans.—Loans on mortgage to be provided where required, amounting to 90 per cent. of value on forty years' repayment terms at 5 per cent. interest. Each scheme to be approved for loans and all particulars to be agreed before building operations commenced.

7 : General.—The Ministry to refuse to grant subsidy facilities to any local authority where subsidy to private enterprise on above terms is not granted. Where subsidies and loans are refused by a local authority to private enterprise and the houses are proved to be required, the Minister of Health to make grants and/or loans direct to the builder.

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1 : Subsidy.—The lump sum subsidy would facilitate the sale to investors in house property, who would not be attracted to an investment where they had to apply for a grant to their local authority every year for the next forty years.

2 : Rents.—The withdrawal of the maximum rent condition after five years, on the grant of a lump sum subsidy would further encourage investors who would not look with favour on property the rents of which were restricted for forty years.

3 : Density.—The density of twelve to the acre is an impossible regulation for low-rented houses : a house covering, say, 400 ft., or 44 yds., stands on a plot of land of 400 sq. yds., the remainder of the land—356 sq. yds.—being open and having to be paid for, sewered or cultivated. At twenty to the acre this house will stand on a plot of 242 sq. yds., and will only occupy one-sixth of the area, five-sixths being open to the light and air. In most town-planning schemes it is permissible to cover one-third of the area with buildings. The restriction of twelve to the acre should be altered, and cottages built at a density of at least twenty in industrial areas.

4 : Roads.—The cost of roadmaking, which is largely for the public benefit, was the subject of a resolution in the House of Commons on February 24, 1930, when it was agreed :

"That this House views with regret the excessive burdens placed upon the occupiers of new houses by the incidence of the present rating system and by street-paving charges, and the detrimental effect of such burdens upon future housing development, and urges the Government to consider proposals for the reduction of such burdens in connection with any future legislation dealing with the question of housing."

5 : Blocks.—The row of eight houses for working-class accommodation has many advantages over the semi-detached style of building. It is much more economical to build; it provides for greater warmth or "cosiness" in the house; it is more neighbourly and gives many people a greater feeling of security.

6 : Loans.—The forty-year repayment scheme is of great advantage in keeping the rent down, for the repayment of a loan at thirty years requires 1½ per cent. on the mortgage, whilst at forty years the percentage is only 16s. 6d.

I should like to point out that my Federation does not build houses nor carry on any business; it is the only representative of the private house builder. We have local associations in eight areas and individual members in all parts of the country.

NORMAN M'KELLEN
(SECRETARY, NATIONAL FEDERATION OF HOUSE BUILDERS)

QUESTIONS THAT ARISE

Testing Dampcourses

M. writes : "*What tests should be applied in comparing samples of bituminous damp-proof courses, and what result in each test is it reasonable to demand of an efficient material ?*"

Roll bitumen courses are presumably meant, and an office test rather than a laboratory one. I would test for 1 : softening point, and choose that which stood the highest temperature without running ; 2 : resistance to pressure—rejecting any which exuded under pressure applied by an ordinary office press; 3 : pliability—bending back and forth until cracking took place, and choosing the sample which stood this test best in conjunction with the two preceding ones. Probably all samples would be found resistant to absorption tests, so that these are unnecessary. If a laboratory test is desired it would probably cost more than using a less chancy material.

A. B.

Restoring Terra-Cotta

B. writes : "*Is there a satisfactory method for treating terra-cotta where the face has perished and broken away by the action of the atmosphere and weather ? Is there any method of repairing it with coloured cement in the way perished stonework can be restored ?*"

Firms specializing in stone restoration would no doubt give a price for re-surfacing decayed facings, and such treatment would probably be successful in arresting further decay, but whether the appearance could be expected to be satisfactory would depend on the type of terra-cotta in question. Either red or yellow impervious material would be practically impossible to simulate in cement, but the varieties having more the appearance of stone could no doubt be repaired so as to be almost unnoticeable, or, of course, if the whole face required treatment and not patches only the change would not matter.

W. H.

Specification for Repairs

A. N. writes : "*What is the best method of tackling a specification for works, chiefly for external redecoration of a large city office, seven floors in height, with two main elevations and several areas? Other than redecoration, the work will include a number of repairs, such as cutting out and facing up cills, repairing cornices, stacks, etc. Will it also be necessary to supply the builder with a plan of each floor ?*"

So many specifications for repairs and small alterations are not sufficiently clear to the builder, the writer usually inserting so many covering clauses and including for work in various parts of the building under one heading, probably fearing repetition.

Plans are not generally necessary for external repair work, but in the case quoted a small-scale block plan should be attached to the specification, and the areas lettered A.B.C., etc., according to the number of the areas. A set of plans should be available for inspection at the architect's or surveyor's office.

The writer should then specify the work *in all trades* to each elevation, each area, and work on the roof with, of course, the usual preliminary clauses.

Your correspondent should have no fear of repetition ; builders are not usually unnerved by a bulky specification, unless the bulk is caused by threatening and meaningless clauses.

L. W. H.

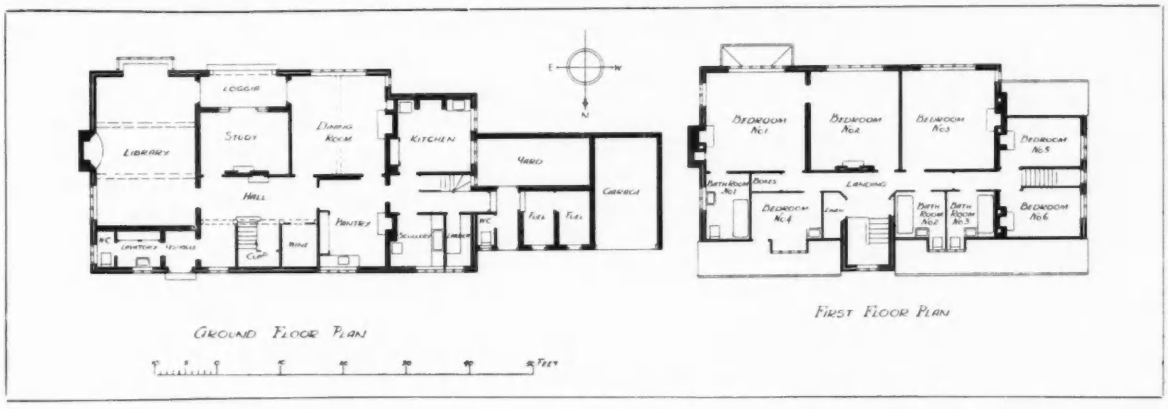
TWO HOUSES IN SURREY

DESIGNED BY THOS. R. CLEMENCE

BOTH these red brick and tile houses at Guildford have loggias on their sunnier aspects. Downlands is built of 2-in. hand-made Daneshill bricks and Twyford red hand-made tiles.

The larger house has, as its principal room, a library with a southward-looking bay window, and the central loggia opens out of the study, about which the remaining ground-floor rooms are grouped. The stairs are at one end of the building, and the long corridor is a feature of the first floor. A garage and fuel stores are built on to the house. The whole of the joinery is in oak, while the steel casements are glazed in squares. The cost was £4,816.

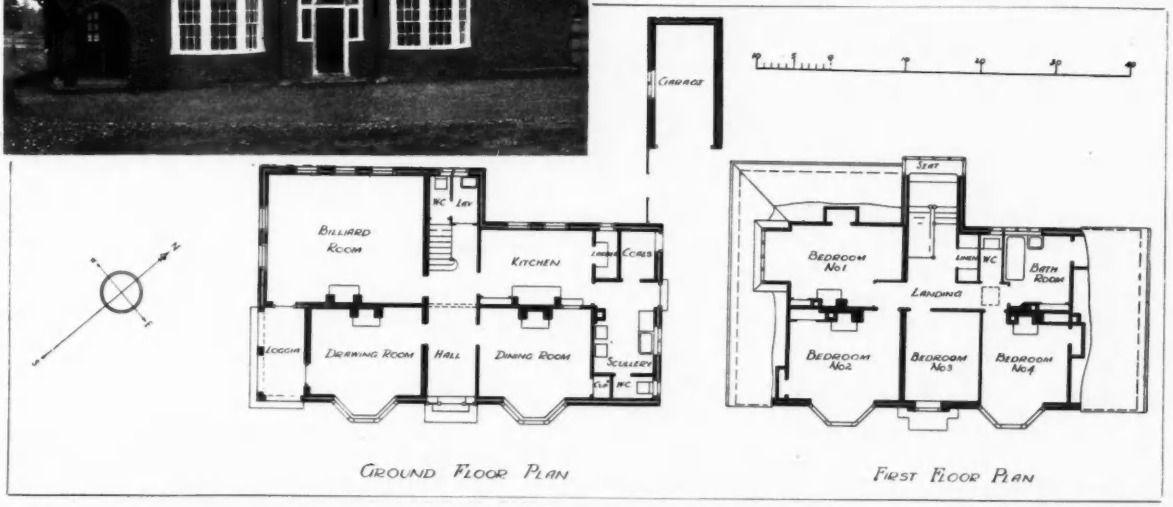


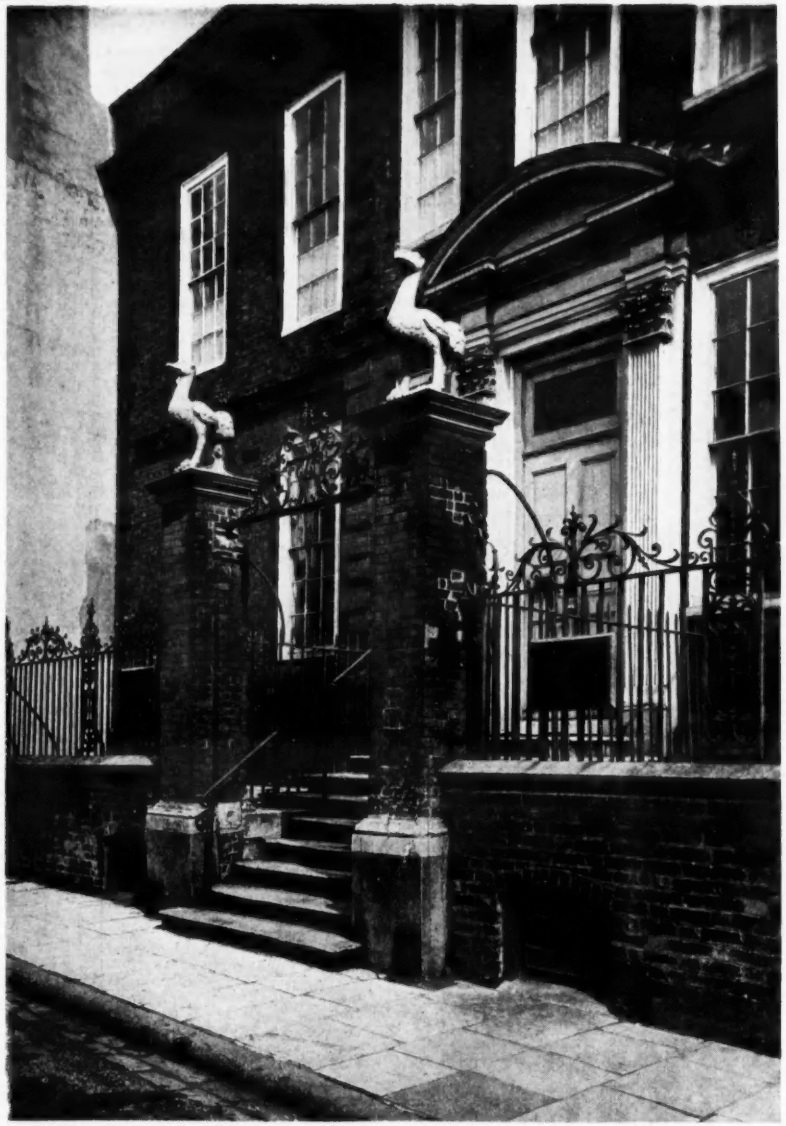




Downlands, of which the garden front is shown, includes a large library, six bedrooms and three bathrooms. Royston has a billiards-room and four bedrooms.

Royston, though smaller, yet provides a billiard-room, some 20 ft. by 17 ft., as well as drawing- and dining-rooms, both with splayed bays. Here the loggia is planned on the southerly corner, wooden sliding sashes are employed, and the floors generally are of polished oak. The cost was £3,228.





Pallant House, Chichester. Built 1711 ; attributed to Wren. A view of the front, showing, in addition to the doorway and window, of which details, measured by J. V. Nisbet and G. R. Linfield, and drawn by the latter, are reproduced on this and the facing pages, the fine ironwork in the forecourt.

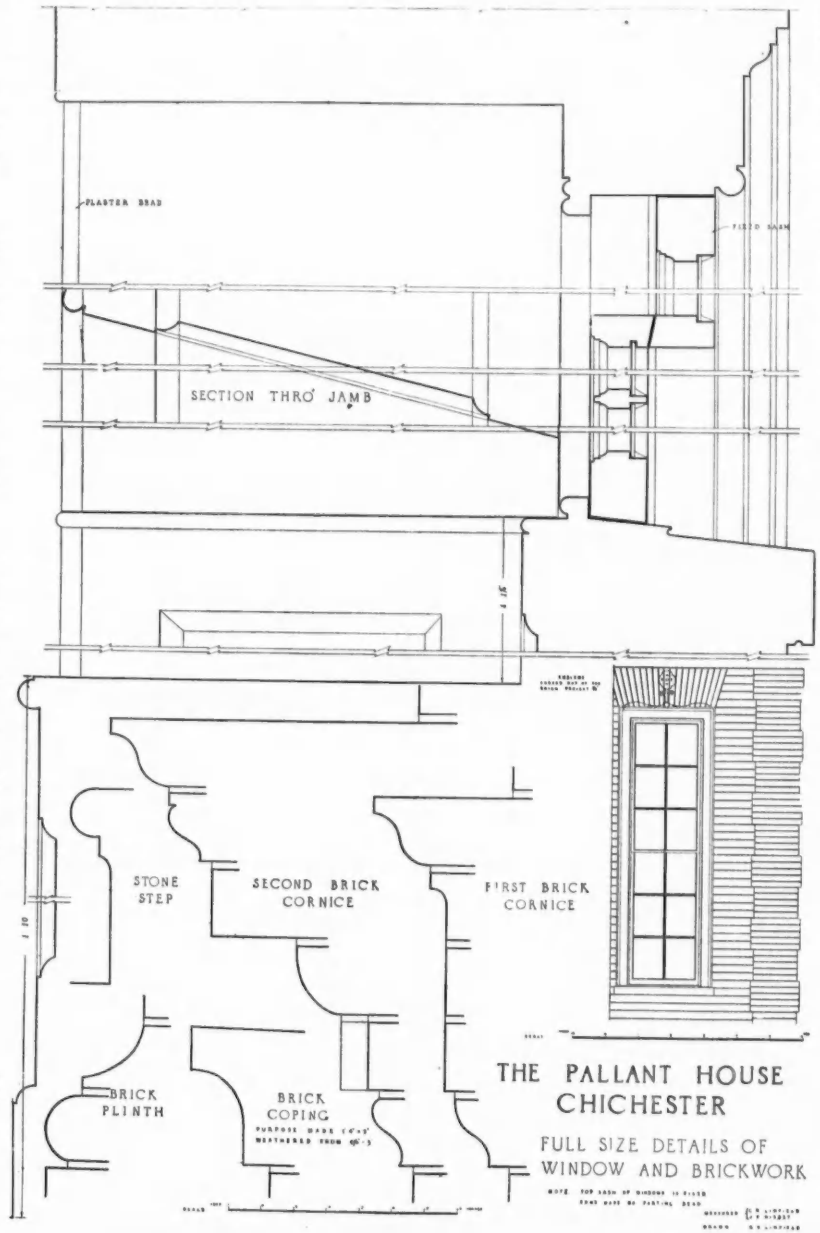
Except for the parapet angle coping stones, the whole of the house is built in red brick. Two kinds of cut-brick quoins were used for the angles and sides respectively.

There are also differences in the forms of the window-heads, each of which has a device — fleur-de-lis, thistle, rose, and so forth—carved in the brick. The sashes, of which the upper portions are fixed lights, lie flush with the wall, and stone cills are absent.

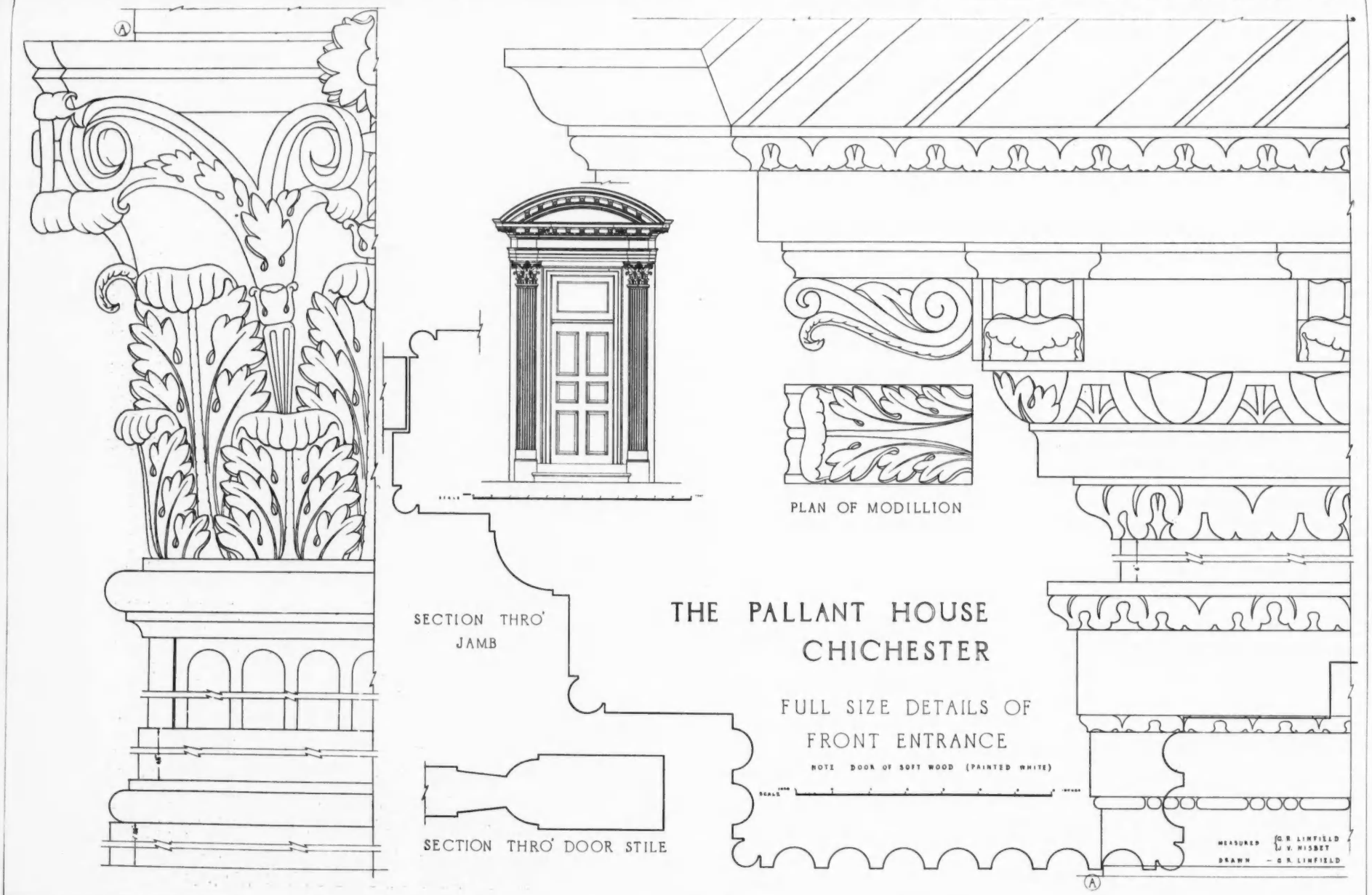
The whole of the fine doorway is of timber construction, and the door itself leads direct into a spacious hall, lit by the windows close beside it on either hand.

Within is a staircase of noble proportions, of which, together with the panelling in the hall, further measured drawings will appear in a future issue.

[The accompanying photograph and that reproduced in the last issue are by F. R. Yerbury.]



J. V. Nisbet and G. R. Linfield, and drawn by the latter, are reproduced on this and the facing pages, the fine ironwork in the forecourt.



THE SPECIFICATION WRITER

Daylight Illumination: The Effect of Internal Decoration

By JOHN W. T. WALSH, M.A., D.SC.

IN a room in which the ratio of the depth of room to height of window does not exceed, say, 1·5 to 2, the state of the internal decoration of the walls and ceiling does not greatly affect the illumination at the back of the room. Matters are otherwise, however, in the case of a really "deep" room, especially if the window head be low. In such a room much of the light reaching the working plane at considerable distances from the window is obtained by reflection from the brighter parts of the ceiling. As this reflected light is necessarily proportional to the reflection factor of the ceiling, it becomes of importance to determine how much of the light at the different parts of such a room far from the window is received directly from the window itself and how much is reflected from the walls and ceiling.

Such a problem is most conveniently attacked by the model method, and work on these lines is now in progress at the National Physical Laboratory. The building used for such work was specially designed for the purpose and erected in 1922. As will be seen from the photograph (figure seven), it is a skeleton building with a glass roof and open sides provided with steel roller shutters which can be rolled up at will so as to leave a clear and unobstructed view from inside. This building houses a sectional wooden building specially constructed so that rooms of various dimensions can be readily built up to face in any desired direction.

For the particular purpose of investigating the problem of the deep room, for instance, a model room 9 ft. wide, 18 ft. from window to back and 11 ft. high, has been constructed, and this model has been covered with wallpapers of different reflection factors, so that the effect of change of reflection factor may be determined. Further, the size of the window opening can be varied at will, so that the effect of this factor in the problem can also be studied.

LIGHT-WELL EFFICIENCY

Another problem which is being investigated by means of models is the efficiency of light wells of various dimensions and with different kinds of internal lining. The frequent necessity for the use of light wells to illuminate the rooms in the inner portions of buildings covering a large floor area has made it important that exact information should be available on the amount of light to be expected in a room facing a well of a given dimension at any stated depth below the opening. For this purpose it is necessary to know the brightness of that wall of the light-well which faces the windows of the room in question. A knowledge of this brightness, expressed as a percentage of the brightness of the sky above the well, enables the light reaching the interior of the room at any point to be calculated precisely, using the method now commonly adopted for this purpose.[1]

Small-scale models of light-wells are being used for this investigation, the mouth of the model in use being placed opposite to a white surface uniformly illuminated so as to form an artificial "sky." The models used range in section from a square to a rectangle of 10 : 1 ratio of length to breadth. The effect of the reflection factor of the material used for facing the walls of a well is found by painting the interior of the model with different paints ranging in reflection factor from about 80 to about 25 per cent.

The fall of reflection factor of a well-facing, owing to accumulation of dirt, is, naturally, a matter which greatly affects the efficiency of the well for lighting purposes. Measurements of the rate at which this fall takes place are being made in actual wells exposed to a city atmosphere.

(To be concluded: for previous article see issue of October 15)

[1] See *Penetration of Daylight and Sunlight into Buildings*. Technical Paper No. 7 of the Illumination Research Committee, D.S.I.R.

IN a paper read by Dr. H. T. Calvert at the annual meeting of the Institution of Municipal and County Engineers, the need for the collection of statistics about the operation of water purification at swimming-baths was emphasized. The mere fact that a water-purifying plant has been installed and is operated was no guarantee of proper results. Simple tests which could be made and collected by baths superintendents would be of great value, in view of the dearth of knowledge of the actual conditions of running. It was urged that no person should be allowed to enter a swimming-bath without first taking a shower bath, preferably with warm water and soap as a preliminary. Even with this precaution the filters installed should be large enough to deal with the whole contents of the bath within a period of four hours or less. The pump must be properly adjusted so as not to overload the filters; a coagulant is generally essential, and the water should be maintained in a slightly alkaline condition. Mechanical filtration alone is ineffective in the removal of bacteria.

Repairing Roof Coverings

(An article on "The Repair of Old Roofs" appeared in this section on October 1 last)

THATCH

IN specifying repairs to thatched roofs it may be only necessary to give a thin coating of new thatch about 6 ins. in thickness, and the inordinately thick covering on old cottages is the result of constant applications in this manner. On the other hand, when the roof has been long neglected, the ash saplings which were frequently used in place of battens may have rotted, and the whole should

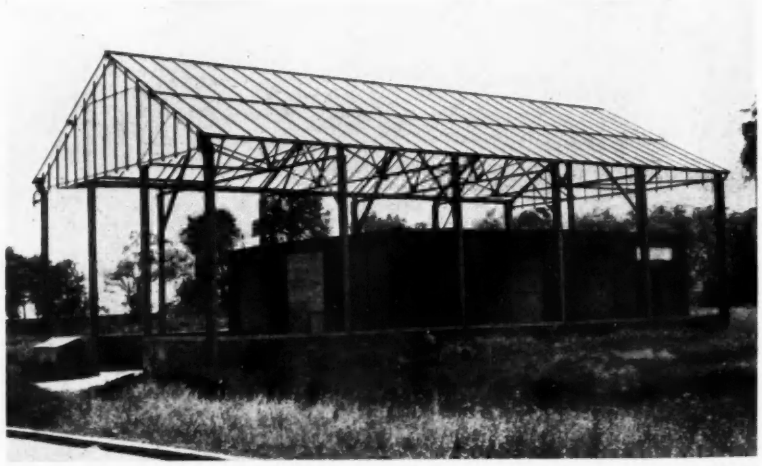
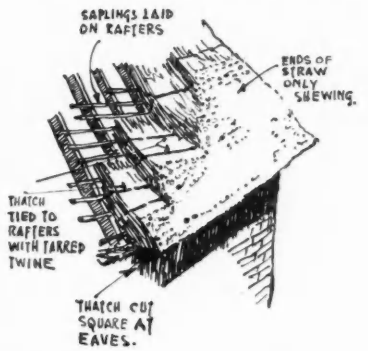


Figure seven. The model building at the National Physical Laboratory, constructed for the researches into interior illumination referred to in this article. It was equipped with steel roller shutters, not here shown.

then be stripped and re-thatched. It may be better to insert new battens in the intermediate spaces without disturbing the construction.

The method of thatching differs in various districts and is best left to the thatcher, but it should be stipulated that little more than the ends

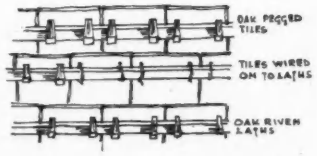


of the straws are to show externally, and that no straggly or bruised straw may be used. This last point should be carefully watched, as straw that had passed through a mechanical threshing machine is useless for thatching. Stout, well-tarred hemp twine should be specified for tying the bundles in place. A thatcher is often careless over these little points in material, though most careful in his work. Thatch should be thoroughly damped before use, and a soaking in alum water is a precaution against fire where straw thatch is used.

TILES

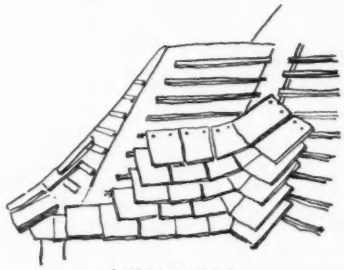
The difference between old and modern plain tiles should be considered in repairing ancient roofs. Modern tiles are usually nibbed and holed, but old tiles have only two square holes in the upper end for the oak pegs on which they were hung. These holes are a sure sign of genuine old tiles, and un-nibbed tiles with round holes when offered for sale as old should be viewed with suspicion.

Where tiles have slipped owing to the

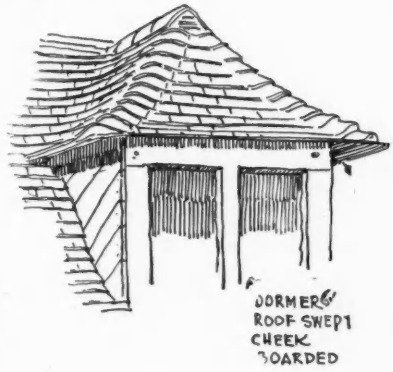


decay or loss of the oak pegs they can be pushed back into place and wired to the battens. If new tiles are necessary they should be made the same thickness and size as the old, and should have the distinctive double camber which makes them watertight. They must be pegged or wired to the lathing, as nails will split these old oak rent laths. When complete, the tiles should be torched from the inside with lime mortar containing a large quantity of long goat hair. It is a mistake to board old roofs under the tiles, as this destroys their elasticity in high winds. One cause of the good condition of old tiles as compared with new is probably due to the greater freedom of movement in sudden emergencies. Boarding also prevents repairs being undertaken from inside, but in the open roof, when the tiles are bedded in hay, this sometimes rots and falls upon the ceiling joists, making damp patches on the ceiling below. In any case this hay or straw is best removed as it is a refuge for vermin.

Lead was very seldom used in flashing old roofs, and various dodges were used to keep out the weather. Verges at gable ends and where the sloping roof abuts against a wall were given a tilt upwards to throw the water away from the weak places. Valleys were swept or laced, and in specifying the new work



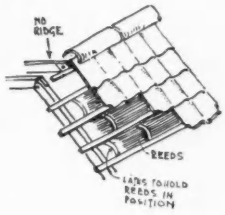
it should be noted which was the old practice. Where the valley between two roofs is to be swept, the pitch must be the same. The roofs of dormers can be swept, but not the cheeks, which were seldom tiled, but commonly plastered or boarded. One should be careful never to ask the tiler to do the impossible.



PANTILES

Pantiles are lighter, cheaper, and can be laid to a less pitch than plain, and when this has been said, it is an end of the catalogue of their virtues. They are less watertight, and when laid on modern roofs have usually an elaborate arrangement of boards, battens and impervious material beneath.

If the roof is letting water it may be necessary to strip it and relay in the modern way, but many old roofs have the pantiles laid over reeds, set horizontally between the battens, on which mortar fillets are placed vertically under the joints of the tiles. These reeds tend to pick up the damp and prevent it from dripping on to the ceiling below. When pantiles are laid to a steep pitch and the timbers show signs of sagging, a close examination will probably show that the original covering was thatch, and in this case it would be proper to specify the removal of the tiling and the restoration of the thatch, rather than go to an expensive strengthening of the roof timbers.

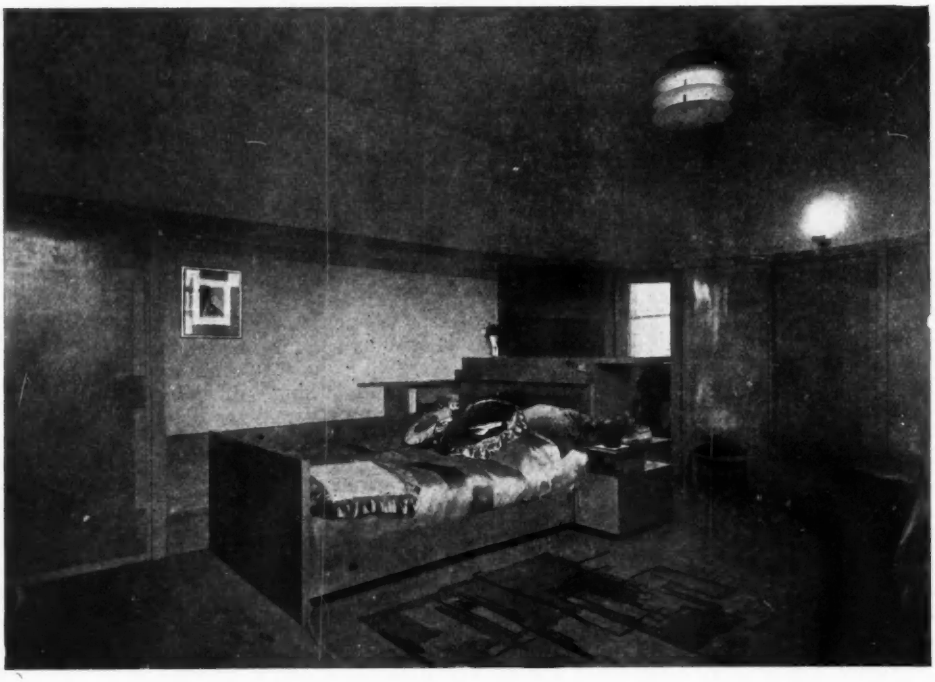


LL. E. W.

A *MEMORANDUM has been issued by the Witney and District Joint Town Planning Committee, making suggestions as to materials and designs suitable for this locality. Stone, preferably undressed for domestic work, is recommended and in the case of brick or concrete the following renderings :—* a *: Two-coat Portland cement rough cast, colour-washed light stone ;* b *: undercoat of waterproofed Portland cement, finishing coat, lias lime and sand (float finished) ;* c *: two-coat light Portland cement (float finished) ;* d *: undercoat of waterproofed Portland cement, finishing with smooth stucco painted in subdued light colourings. As regards roofs, the various pitches recommended are : Stone tiles, 53°–60° ; concrete or clay tiles, 47°–53° ; natural slates or asbestos cement pantiles, 25°–35° ; corrugated asbestos cement sheeting, 15°–30°. Eaves should have a minimum projection of 9 in. The use of barge boards is not recommended, and in the case of concrete or clay tiles, hips are often preferable to gables. Plain segmental or "saddleback" ridge tiles are the most suitable. Chimney stacks should be constructed in stone.*

Ground-floor window openings should not much exceed in height twice their width, second-floor windows being one and a-half times their width in height, and attic or dormer windows square. There are also some hints on the colours of exterior paintwork, buff or dark green being recommended for joinery, though doors and windows may be white or cream.

D



A bedroom in sycamore. By R. Mallet-Stevens. From Modern French Decorative Art, *second series. "A book for the architect, the decorator, the student, the craftsman, and the emancipated patron of the decorative arts."*

LITERATURE

MODERN FRENCH DECORATIVE ART

THE unceasing search by architects and decorators after new motifs, both in interior design and in the more mundane forms of domestic utensils, is exemplified in this well-produced and intriguing book. During the five years which have passed since the first volume of this series was published, there has occurred an even greater reaction to traditional form which, but a short decade since, was considered typical of all that was desirable in interior design. In addition to the pronounced simplification of fundamentals, there has been an imaginative and courageous extension of the scope of glass, metal, plywood and veneers, as applied to interior forms and to those of furniture also. Above all, the realization that artificial illumination could be utilized as an inherent and integral part of decorative design has widened the prospect for the modern designer in a manner hitherto unthought-of.

A few years ago the prevailing obsession was to drape a room with indiscriminate and stock-designed electric chandelier fittings, usually hung with precision in the centre of the ceiling and casting a baleful glare and gaunt uncouth shadows; this is no longer regarded as a final state of perfection.

Significant of modern progress, too, is the demise of the period room. It is apparent that the tendency to think of a room in terms of Tudor or Empire or Jacobean styles is being vigorously discouraged on the Continent; instead, it is realized that we are actually living in the present year of grace, and not that of a sham regenerated area of antiquity. Of this it is easier to persuade the Frenchman than the Englishman, whose ideal home is persistently that of a bijou baronial mansion of the Tottenham Court Road Jacobean period. The impediment to the modern movement in this country is the client who "knows what he wants," and until he can be persuaded to entrust the decoration of his home to specialists in modern thought and design, so long will the standard of English creative art be depressingly low.

Among many subjects illustrated in this book are works by R. Mallet-Stevens, André Lurçat, Maurice Dufrène, Gabriel Guévrékian, and Marcel Guillemard, whose interiors, so simple, clean-cut, and withal so gracious, are all examples of superlative achievement in the field of modern French art, at which posterity will surely have no cause to sneer.

There is a tendency sometimes to force values, to over state, to trick wall surfaces with changes of plane and shape for which there is no apparent structural necessity; Mallet-Stevens's study in a villa at Hyères is not quite guiltless of this affectation; neither is Chareau in the Tours Hotel reading-room; but the results are so stimulating and provocative that these caprices can be regarded more or less tolerantly.

Mallet-Stevens's hall is brilliant in conception; the handling of the staircase flight with the cantilever landing reveals the touch of a man supremely sure of himself. There is no groping here, no tentative experiment, but a direct and masterly exposition of modernism.

A large portion of the book is devoted to illustrations of furniture, fabrics, eating utensils, and articles for personal adornment and use. Some of the fabric and wall-paper designs are merely eccentric, too self-conscious to be of interest as serious contributions to the subject; in particular Foujita's printed silk design of a mass of worms rampant is depressingly puerile. Jean Lurçat's tapestry is another example of modern imbecility. On the other hand, the printed silks of Sonia Delaunay are magnificent. All that it is possible to say in the design of knives, forks and spoons, coffee-pots, plates and saucers, has surely been said already; nothing of pre-eminent originality is revealed in the examples illustrated in this section of the book.

The furniture designs illustrated are good, nearly good, and not nearly so good. The examples range from beautiful expressions of the object to banal efforts at originality for the sake of being a trifle different.

The ironwork is extraordinarily virile and fresh in treatment, and ranks high in achievement. The standard of craftsmanship is amazingly high, and

gives fitting expression to the imaginative and beautiful designs.

Modern French Decorative Art is a book for the architect, the decorator, the student, the craftsman, and the emancipated patron of the decorative arts. The illustrations are selected to cover an extraordinarily wide field, but some indication of the colour schemes of the various rooms added beneath the titles of the examples would have been of great assistance in further appreciating the effect of the actual rooms. J. R. LEATHART

Modern French Decorative Art: Second Series. London: The Architectural Press. Price £2 10s. net.

A YEAR-BOOK AND DIARY

THE *Year Book and Diary* of the Berks, Bucks and Oxon Architectural Association, recently issued, serves to show that a year-book of a professional society can be of daily interest, instead of the usual addition to the recipient's bookshelf. In addition to the transactions and proceedings of the Association, the names of the officers of the council, past officers, etc.—information which is to be found in the year-book of every society—there have been incorporated a useful calendar and diary for 1931. Each page in the diary is devoted to two days—as compared with three days in the last year's edition.

The frontispiece of the book is a portrait of the president of the association, Mr. H. Hult, F.R.I.B.A.

The 1930 Year-book and the 1931 Diary of the Berks, Bucks and Oxon Architectural Association. Reading: The Philip Palmer Press, Ltd. Price 2s. 6d.

SOCIETIES AND INSTITUTIONS

THE R.I.B.A. STATUTORY EXAMINATION

Two candidates presented themselves for the recent R.I.B.A. Statutory Examination for candidates for the office of district surveyor, and one candidate, Mr. S. G. Skrimshire, was successful.

ROADS BEAUTIFYING ASSOCIATION

At the annual meeting of the Roads Beautifying Association, held at the Royal Horticultural Hall, London, on October 21, Lord Clinton, who presided, said they had got to recognize that there were certain forces in opposition to them. He did not think this opposition arose from any real objection to æsthetic aims, but from the overpowering demands of industry. The Association must seek to guide those demands into better channels.

Some county authorities were dealing with acts of vandalism very effectively, but in the long run they must trust to education and the force of public opinion. It would be exceedingly unfortunate if, while the Association had struck a note that appealed to so many people, there should be a continual spoiling of these country districts, not only by great roads, but by ribbon development, the substitution of ugly concrete viaducts for beautiful old bridges, and, perhaps most of all, by the use of ugly materials for public buildings.

The work that had been done by the



[*From* Modern French Decorative Art: Second Series

Drawing room, designed by Marcel Guillemard, and executed by "Primavera."

Association was reviewed by Dr. Wilfred Fox, hon. secretary of the Association.

A letter from Mr. Herbert Morrison, Minister of Transport, congratulating the Association on their work, was read during the meeting.

BAD HOUSING DESIGN

Strong criticism of the types of houses that are being erected, not only in the London suburbs, but elsewhere, was made by Dr. Raymond Unwin, in addressing the conference of the Association of Municipal Corporations, held in London. Much of the housing done by municipalities, he admitted, was a credit to them, but the standard of design of the houses that are going up haphazard all round our towns he described as a disgrace to those who build them and a degradation to those who live in them.

The greatest part of their ugliness, he said, was due to the patching on of lumps of so-called ornament. It was a disgrace to a people with the finest tradition of good simple cottage architecture in the world that we should allow the design of our buildings to degenerate to so low an average that it became a positive pain to go about the new roads and streets and see how they were disfigured for want of design.

TOWN AND REGIONAL PLANNING

Mr. R. B. Donald, M.INST.C.E., gave an address at a recent meeting of the Belfast Literary and Debating Society on "Town and Regional Planning."

He said the underlying principle of town planning was, after careful and deliberate thought, to place on a plan what was considered to be the ideal scheme, prepared in the best interests of the community as a whole, so that in any future development of the area or any alteration such as the result of slum clearance, the well-considered layout might gradually, as circumstances permitted, be given effect to. A scheme must provide, in broad outline, zones for special purposes—industry, business and residences, roads and open spaces. It would also be necessary to limit the number of houses to be built per acre on any particular area, and to control elevations.

NORTH WALES ARCHITECTURAL SOCIETY

At the end of September the above Society held another of their summer excursions, to the district of Llanfairfechan to inspect various work which had been carried out by Mr. H. L. North, F.R.I.B.A., and the late Mr. Kennedy. A most enjoyable afternoon was spent, particularly in the inspection of Mr. North's work. The party were afterwards entertained to tea by Mr. and Mrs. North.

The last excursion in connection with the Society was made to Howell's School, Denbigh, where an inspection was made of the large extensions which have just been completed to the designs of Sir Aston Webb and Son.

The members were conducted over the works by Mr. Cameron, representing the architects, and Miss Robinson, the Principal, who gave every facility to the visitors for full inspection and afterwards entertained them to tea. At the close of the meeting the members passed a vote of condolence with Mr. Maurice Webb and family on the death of his father.

ITALIAN ARCHITECTURE

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts last Wednesday, gave a brief outline of the Mediæval or Romanesque architecture of the cities of the hilltops and plains of Central Italy. Each city, he explained, guided by its great families, developed its own resources and strove to outshine neighbouring cities with town-planning schemes, and by the erection of palaces and churches. Thus it was possible for cities like Pisa to undertake grand works of architecture, magnificent enough to go down to posterity.

CAST CONCRETE PRODUCTS ASSOCIATION

The following have been elected as officers and members of the council of the Cast Concrete Products Association for the ensuing session: Chairman, Mr. W. H. Jenks; vice-chairman, Mr. W. R. E. Honner; executive committee: Messrs. W. H. Jenks, W. R. E. Honner, G. B. Brader, G. W. Butchard, E. L. Cotterell, R. P. Girling, and Major F. G. P. Gedge. The council comprises the whole of the executive committee and Messrs. O. A. Aisher, J. G. Ambrose, W. A. Hutchings, A. G. James, H. Peace, D. Y. Smith and N. Thomas.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATION

30374. Berry, A. F. Manufacture of reinforced blocks, etc. October 10.

SPECIFICATIONS PUBLISHED

331179. Verity, H. Coin-freed revolving doors by which means entrance can only be made after the coin has been inserted in the coin-freed mechanism. Also, a master claim covering such operations. Working in conjunction with this invention will be another for mechanically operating such revolving doors, which would automatically stop in case of obstruction between the doors and wings.

335187. Marsil, P. Extensible buildings.

335816. Arnold, E. Reinforced concrete unit for the construction of shafts, tunnels, and the like.

335959. Bradshaw, F. W. Reinforced concrete posts, beams or girders, and the construction thereof.

335999. Moir, Sir E. W. Renewal or repair of bridge piers.

336135. Bennett, jun., J. H. Reinforcing members for steps of concrete and the like.

COMPETITIONS OPEN

November 17.—The Scarborough Education Committee invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor: Morris Thompson, F.R.I.B.A. Premiums: £100, £60, and £40, for designs placed first, second and third, respectively. Applications for conditions of the competition should be made to R. Underwood, Director of Education, Education Offices, Huntriss Road, Scarborough, not later than November 17. Deposit £1 1s. Latest date for submission of designs: January 17.

November 30.—The Burton-on-Trent Local Education Authority invites architects to submit competitive designs for a proposed new Council school to accommodate approximately 800 children, to be erected on a site in Clarence Street. Assessor: H. T. Buckland, F.R.I.B.A. Premiums: £150, £100 and £50 for the designs placed 1st, 2nd and 3rd, respectively. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs: November 30.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young

Communist Square), and will contain a mass musical stage, and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

February 1.—The Norwich Corporation invites architects practising in Norwich and in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb. 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, OCTOBER 29

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of Members' Holiday Sketches. Until November 27.

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. Opening address by the President, Professor Patrick Abercrombie, F.R.I.B.A. **5 p.m.**

SOUTH-EASTERN SOCIETY OF ARCHITECTS. At the School of Art, Maidstone. "The Relation of Light to Decoration." By R. W. Maitland, A.R.I.B.A. **5.30 p.m.**

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 Conduit Street, W.1. "Stained Glass." By Sir Charles Nicholson, Bart., F.R.I.B.A. **8 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Last of three public lectures on "Danish Castles and Manor Houses." By J. H. Helweg. (Lantern Illustrations.) **5.30 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Romanesque Period in North and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

THURSDAY, OCTOBER 30

ARCHITECTURE CLUB. At the Architectural Association, 34 Bedford Square, W.C.1. Annual General Meeting, followed by a Supper Discussion on "Function—As Expressed in Modern Swedish Architecture," to be opened by Professor C. H. Reilly, F.R.I.B.A. **7.30 p.m.**

SOCIETY OF ANTIQUARIES, Burlington House, Piccadilly, W.1. "The Date of Cissbury: Report on Excavations undertaken by the Worthing Archæological Society." By E. C. Curwen and R. P. Ross Williamson.

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Third of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. First of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

BURTON-ON-TRENT COUNCIL SCHOOL COMPETITION. Latest date for submission of designs.

FRIDAY, OCTOBER 31

OVERHEAD LINES ASSOCIATION. At the Georgian Restaurant, Harrods, Ltd., Knightsbridge, W. Third Annual Conversazione and Supper Dance. Reception by the President, 8.30 p.m. **8 p.m.**

NETTLESON PLAYERS. At the King George's Hall, 1 Great Russell Street, W.C.1. Two plays entitled "Talma" and "It Pays to Advertise." **7.30 p.m.**

SATURDAY, NOVEMBER 1

Sunrise, 6.52 a.m. Sunset, 4.34 p.m.

HORNIMAN MUSEUM, Forest Hill, S.E.23. "London in the Stuart Age." By D. Martin Roberts, M.A. (Lantern Illustrations.) **3.30 p.m.**

MONDAY, NOVEMBER 3

R.I.B.A., 9 Conduit Street, W.1. Allied Societies Conference, 2 p.m. Meeting of the Board of Architectural Education, 2.30 p.m. Council Meeting, 4.30 p.m. Opening General Meeting; address by the President, Sir Banister Fletcher, P.R.I.B.A., F.S.A., 8.30 p.m. **2 p.m.**

NORTHERN POLYTECHNIC, Holloway Road, N.7. "Style in Architecture." By R. A. Duncan, A.R.I.B.A. **7 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. Mersey and North Wales (Liverpool) Centre. At the Laboratories of Applied Electricity, the University, Liverpool. "The Steam and Electric Power Plant of Imperial Chemical Industries, Ltd., at Billingham" (to be illustrated by a cinematograph film). **7 p.m.**

TUESDAY, NOVEMBER 4

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Practice Standing Committee.

INSTITUTION OF CIVIL ENGINEERS, Gt. George Street, Westminster, S.W.1. Opening Meeting. Sir George William Humphreys, K.B.E., will deliver an address, followed by the presentation of medals awarded by the Council. **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Public lecture on "Egyptian Statues." By Miss M. A. Murray. (Lantern Illustrations.) **5.30 p.m.**

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Industry." By Sir Walter Layton, C.H. **8 p.m.**

WEDNESDAY, NOVEMBER 5

R.I.B.A., 9 Conduit Street, W.1. Meetings of the Art Standing Committee and the Board of Architectural Education Examinations Committee.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Tunbridge Wells Chapter. At the Rose and Crown Hotel, Tonbridge. Joint Luncheon with members of the Southern Counties Federation of Building Trades Employers and Builders in the Chapter area. 1.15 for 1.30 p.m. **1.30 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in North Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. Sessional Meeting. "The Operation of the Heat Pump, and its Possible Applications to Heating Problems, particularly Swimming Bath Heating." By T. G. N. Haldane, M.A., A.M.I.E.E. **7 p.m.**

WEDNESDAY, NOVEMBER 5 (*continued*)

INSTITUTION OF SANITARY ENGINEERS. Annual Dinner, to be held at the Holborn Restaurant, W.C. **7 p.m.**

THURSDAY, NOVEMBER 6

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. At the Municipal School of Art, Brighton. "Modern Buildings." By Francis R. Yerbury. (Lantern Illustrations.)

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lecture. Fourth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Second of a course of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Building: Its Sculpture and Painting." By Professor E. S. Prior (Lantern Illustrations.) **5.30 p.m.**

SATURDAY, NOVEMBER 8

Sunrise, 7.4 a.m. Sunset, 4.23 p.m.

MONDAY, NOVEMBER 10

SOCIETY OF MOTION PICTURE ENGINEERS. At the Royal Photographic Society, 35 Russell Square, W.C.1. "Sound Film Studio." By C. W. Glover, A.M.INST.C.E., M.I.STRUCT.E. **7.45 p.m.**

TUESDAY, NOVEMBER 11

MORLEY COLLEGE, Westminster Bridge Road S.E.1. "Life and the Countryside." By J. W Robertson Scott. **8 p.m**

WEDNESDAY, NOVEMBER 12

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "The Royal Society of Arts Competition of Industrial Designs." By Professor A. E. Richardson, F.S.A., F.R.I.B.A. Chairman: The Rt. Hon. Lord Stanmore, C.V.O. **8 p.m.**

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. Smoking Concert, to be held at Booth's Restaurant, East Street, Brighton. Chairman: John L. Denman, F.R.I.B.A.

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in Central and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the College of Technology, Manchester. Paper by Oscar Faber, O.B.E., D.SC. **7 p.m.**

THURSDAY, NOVEMBER 13

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Science Standing Committee.

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "A Comparison of English and Foreign Building Laws." By C. H. Cottew, M.INST.S.E. **6.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Fifth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Third of five public lectures on "Re-planning of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Modern Pigments: Their Proper Selection and Use." By A. P. Laurie, D.SC. **4 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre, "English Mediæval Painting." By W. G. Constable, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 14

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Stresses in Angle Sections." By F. C. Bridge. **6.30 p.m.**

CHADWICK LECTURES. At the R.I.B.A., 9 Conduit Street, W.1. "The Object and Methods of Sewage Treatment, particularly in Relation to Inland Towns and Isolated Institutions." By J. H. Coste. Chairman: Sir George Humphreys, K.B.E., M.INST.C.E. **8.15 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Painting Media: Oils, Varnishes and Tempera." By A. P. Laurie, D.SC. **4 p.m.**

SATURDAY, NOVEMBER 15

Sunrise, 7.16 a.m. Sunset, 4.12 p.m.

HORNIMAN MUSEUM, Forest Hill, S.E.23. "The Lake Villages of Somerset." By H. St. George Gray, F.S.A. **3.30 p.m.**

MONDAY, NOVEMBER 17

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Executive Committee. 4 p.m. General Meeting. "Public Control of Buildings: The Position in 1930." By A. N. C. Shelley. 8 p.m. Also, Licentiates' Examination to qualify for Fellowship. **4 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Methods of Wall Paintings." By A. P. Laurie, D.SC. **4 p.m.**

TUESDAY, NOVEMBER 18

ROYAL ACADEMY, Burlington House, W.1. "The Theory of Colour and its Application to Painting." By A. P. Laurie, D.SC. **4 p.m.**

LAW REPORT

BLOCKS OF FLATS: CONSTRUCTION OF AN ACT

Towle (H.M. Inspector of Taxes) v. Improved Industrial Dwellings Co., Ltd., and the Company v. Towle. Court of Appeal. Before the Master of the Rolls and Lords Justices Romer and Slesser

The hearing of these appeals, which had stood over from the end of last term, was resumed by the Court.

They raised interesting questions as to the methods to be employed in assessing blocks of flats for income-tax purposes.

The appeal was by the Dwellings Co. from the judgment of Mr. Justice Rowlatt, sitting in the King's Bench Division, allowing the appeal of the Crown from a decision of the Income Tax Commissioners and dismissing a cross-appeal by the company.

The flats, which were erected for the housing of the working classes, are situate at Morrison Buildings South, Commercial Road, Whitechapel, and had been assessed as separate flats. The company contended that by the grouping of the flats they were deprived of their legal right to claim allowances on income tax in respect of voids of one or more, while the whole block in which they were situate was not empty. They also submitted that a reduced scale of allowance for repairs would be allowed under such grouping as compared with the larger allowance made in the case of each flat being assessed separately. The company pointed out that the ground-floor flats were approached by passages direct from the street and the upper flats by staircases leading to landings and passages on to which the front doors of the flats opened. Each flat was self-contained. In 1925 the Stepney Borough Council, under the Valuation (Metropolis) Management Act, 1869, assessed the flats as separate flats. No objection was made by the then Inspector of Taxes. The company submitted under the circumstances that each flat in fact and in law was a separate house or flat for all the purposes of the Income Tax Act and should be so assessed.

The Crown contended that notwithstanding the Valuation (Metropolis) Act, 1869, the unit of assessment was each group of flats, and that the amount of the assessment was the amount of assessment of each group.

The Commissioners came to the conclusion that the gross assessment of the several flats made under the 1869 Act were conclusive for the purposes of the Income Tax Acts during the quinquennial period, 1925–30. But if the Court were of opinion that determination was wrong and the flats should be reassessed during the quinquennial period, then the Commissioners determined that under the Income Tax Rules the flats should be assessed together in blocks or groups, consisting of those approached from the street by a separate entrance.

The Crown appealed from the first decision and the company from the second.

Mr. Justice Rowlatt held that the contention of the Crown was right, and allowed the appeal, and dismissed the company's cross-appeal.

Mr. Latter, K.C., for the company, submitted that in this case it was clear that each flat must be held to be a separate house under the Income Tax Act and must be assessed and charged separately. The flats were within the area to which the Valuation (Metropolis) Act, 1869, applied and under it each hereditament was separately valued and assessed.

Mr. Stafford Cripps, K.C., for the Crown, said, bearing in mind the main objects of the Income Tax Act, 1853, and the Act of 1869, the decision of Mr. Justice Rowlatt was right. The annual value was arrived at quite irrespective of section 36 of the Act of 1869, the main object of which was to allow the landlord to get into touch with the authorities instead of the tenant. Under it the landlord was to be assessed. He might be charged twenty different times, but both the assessment and the charge which he had to pay was to be a single charge.

The Court reserved its judgment.

TRADE NOTES

The Ripplesay, one of the latest models of electric fires illustrated in the new catalogue just issued by Messrs. Best and Lloyd, Ltd., does not set out to imitate the live coals of an ordinary open fire, but has been designed to represent the abstract qualities of intense heat. This has been done by means of a glowing flame-like pattern which is always moving and always changing. To produce this effect the light from a 30-watt metal filament lamp is passed through bubbling water contained in a bulb, and the image of the filaments is projected on a glass screen and shows as a system of flame-like lines. The effect is heightened by the moulded ripples on the glass screen and by the reflection from the facets of the sheet metal forming the back of the fire.

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The rapid progress made by Messrs. W. H. Gaze and Sons, Ltd., in the erection of the Dorking Public Halls has stimulated the following eulogy from a local newspaper: "Such good progress is being made in the erection of the Dorking Public Halls that the work is about a week in advance of the contract date. To the resident of Dorking who passes the halls daily the rate of progress is not so noticeable, but to the infrequent visitor to Dorking the progress being made is amazing. Unless something exceptional happens, the halls will be ready for opening next January."

Mr. Charles Lidbury has been appointed chief general manager of Westminster Bank, Ltd., in succession to Mr. John Rae. Mr. Walter Bentley, an assistant general manager of the bank, has been appointed a joint general manager.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

Coulsdon and Purley U.D.C. offices, Brighton Road, Purley (pages 647–651). General contractors, H. Bacon and Son, Ltd. Sub-contractors: Associated Asphalt Co., Ltd., asphalt; Thomas Laurence and Sons, Ltd., facing bricks; Patent Victoria Stone Co., Ltd., artificial stone; Edward Wood & Co., Ltd., structural steel; J. A. King & Co., Ltd., hollow floor tiles; Siegwart Fireproof Floor Co., Ltd., fireproof construction; Ames and Finnis, tiles; Hollis Bros. & Co., Ltd., oak flooring and teak block flooring; Waterex & Co., Ltd., waterproofing materials; Norris Warming Co., Ltd., central heating; G. Matthews, Ltd., stoves; Croydon Gas Co., gasfitting; County of London Electric Supply Co., Ltd., electric wiring and electric heating; Wm. Whitehouse & Co., Ltd., and L. Dernier and Hanlyn, Ltd., electric light fixtures; City Iron Co., sanitary fittings; Carter and Aynsley, Ltd., door and window furniture; Reliance Telephone Co., Ltd., telephones; Ratner Safe Co., Ltd., strong-room doors; Wenham and Fowler, iron railings and lamp standards; James Walker, decorative plaster; Thomas Elsley & Co., Ltd., metalwork; John P. White and Son, Ltd., panelling to Council chamber; Anselm Odling and Sons, Ltd., marble; Carter & Co. (London), Ltd., tiling; John P. White and Son, Ltd., benches for Council chamber; B. Cohen and Sons, Ltd., chairs in Council chamber and furniture for committee rooms.

No. 233 High Holborn, W.C.2 (pages 644, 652–655). General contractors, E. A. Roome & Co., Ltd. Sub-contractors: Abbey Heating Co., heating; Asbestos Cement Products, Ltd., Decolite floors; Concrete Ltd., fireproof floors and roofs; Diespeker & Co., Ltd., terrazzo floorings; Jacob, White & Co., Ltd., electrical work; W. James & Co., Ltd., steel windows; Medways Lift Co., Ltd., lifts; Metal Propellers, Ltd., Staybrite metalwork; Anselm Odling & Co., Ltd., marble; Raines and Porter, Ltd., external cement rendering; Salter, Edwards & Co., Ltd., asphalt; Speirs & Co., ironmongery and sanitary fittings; Sturtevant Engineering Co., Ltd., vacuum cleaning plant; W. E. Whiteside, Ltd., metal lift enclosures; H. Young & Co., Ltd., steelwork.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

Mr. George Lansbury, the First Commissioner of Works, has announced a Government offer of £90,000 to assist the trustees in the restoration of ALEXANDRA PALACE. The sum required is £200,000.

The Essex County Council proposes to erect a secondary school for boys on a site of eleven acres of land, near High Street, BARKINGSIDE.

Plans for the erection of three new schools in CROYDON have been forwarded to the Board of Education for approval.

Plans have been submitted to the ESHER-DITTONS U.D.C. for the development of the Broom Hill estate, with provision for a new road off the Portsmouth Road and twenty-nine houses and flats; also for the development of Hooklands estate, Long Ditton, in connection with which new roads and 197 houses are proposed to be erected; and for the development of part of the Hinchley Wood estate, Thames Ditton, twenty-one acres of land in extent, for 177 houses and for shops near the new Hinchley Wood station.

A new church, school and presbytery are to be built at FELTHAM, Middlesex.

The Hackney B.C. has passed plans, submitted by Mr. Clifford Aish, for additions at the Empress Electric Theatre, Mare Street, HACKNEY.

The HENDON R.D.C. has decided to purchase land adjoining the proposed cemetery in the Pinner Road for housing purposes.

A new elementary school is to be erected at HOUNSLOW, at a cost of £44,000.

The Kent Education Committee proposes to erect a school between ORPINGTON and Green Street Green.

At a general meeting of the members of the Devonshire Club, St. James's Street, PICCADILLY, W.1, a report of the committee, giving proposals for a rebuilding scheme, was adopted. Mr. Septimus Warwick, F.R.I.B.A., has prepared plans, showing work to be carried out at an estimated cost of £47,500.

Plans have been prepared by Messrs. Swan, Norman and Clay, for the erection of a private theatre in Grove Road, ST. JOHN'S WOOD, N.W.

The WESTMINSTER City Council is to erect a tuberculosis dispensary and a maternity and child welfare centre at Ebury Bridge, at a cost of £21,000.

The WESTMINSTER City Council has decided to construct a subway, at a cost of £10,500 (in continuation of the subway to be made by the Central London Railway Company at Marble Arch) from the north-east corner of Park Lane to Cumberland Gate, Hyde Park.

SOUTHERN COUNTIES

Plans passed by the HASTINGS Town Council: Conversion of two houses into shops, 274 and 276 Bexhill Road, St. Leonards; six dwelling-houses, Abbey Drive, St. Mary's Estate, St. Leonards; twelve dwelling-houses and two shops, Hythe Avenue, St. Mary's Estate, St. Leonards, for Mr. H. H. Ford, architect; four dwelling-houses, 190–196 Bexhill Road, St. Leonards, for Messrs. Ward, Son and Wray, architects; two houses, 283 and 284 St. Helen's Road, Hastings, for Mr. H. M. Jeffery, architect; house and garage, Fairlight Road, Hastings, for Mr. J. Hunt, architect.

Plans passed by the HOLLINGBOURNE U.D.C.: Two cottages and a garage, Stede Court, Harrietsham, for Sir Robert Gooch; bungalow, Gravelly Bottom, Broomfield, for Messrs. J. Vincent and C. E. Message; bungalow, Water Lane, Thurnham, for Mr. J. W. Bridge; bungalow, The Street, Wychling, for Mr. H. R. Halford; house, Pilgrim Road, Detling, for Mr. T. Cook.

Plans passed by the WOKING U.D.C.: Four houses, Pyle Hill estate; sixty detached bungalows, off Saunders Lane; fourteen detached bungalows, Maple Grove; six detached bungalows, Lime Grove; four detached houses, Westfield Road.

Improvements are to be carried out to the WESTCLIFF swimming baths, at a cost of £3,000.

SOUTH-WESTERN COUNTIES

The BRISTOL Town Council has decided to embark on large and comprehensive schemes for the relief of the unemployed, involving a total of nearly £120,000 spread over about five years.

MIDLAND COUNTIES

The AMPTHILL U.D.C. has decided to acquire a site of 6,874 acres of land in Station Road, for housing purposes.

The ASTON R.C. is to erect about 112 houses on sites at Ravenstone, Oakthorpe, Swannington and Thringstone.

The BASFORD R.D.C. has approved the recommendation of the Housing and Town Planning Committee to erect thirty-two houses on the Swingate site at Kimberley, subject to proposed road-widening modifications.

Messrs. Leonard Barnard and Partners, architects, have prepared plans for a new cinema to be erected on a site in Westgate Street, GLOUCESTER.

The KETTERING U.D.C. has received sanction to borrow £36,560 for the erection of 100 houses on the Piper's Hill estate.

Plans passed by the KETTERING U.D.C.: Two houses, Trafalgar Road, for Messrs. Mace and Wooding; extension to Poor Law Institution, London Road, for the Northants C.C.; three houses, Gypsy Lane, for Messrs. A. P. Lewis and Son, Ltd.

The LEAMINGTON T.C. is to erect 190 houses on the Shrubland estate.

Plans passed by the STRATFORD-ON-AVON T.C.: Alterations, Green Dragon inn, for L. L. Dussault; dwelling house, Bishopston, for B. C. H. Underhill; house, Bishopston, for G. E. Boshier; garage, 119 Loxley Road, for Mr. French; alterations, 47 Sheep Street, for the Stratford-on-Avon Corporation; alterations, 5 and 6 Evesham Road, for H. Carter.

NORTHERN COUNTIES

At a meeting of the Blackpool Branch of the National Federation of Building Trade Operatives a resolution was passed, urging the BLACKPOOL T.C. to erect 2,000 houses.

The CARLISLE T.C. has agreed to purchase the Currock House estate, comprising thirty-nine acres of land, for housing purposes, at a cost of £6,000.

The DENNY AND DUNIPACE Town Council has decided to erect 120 houses on a site at Herbertshire Park, Denny. A proposal to build a hostel for single persons is under consideration.

The HEBBURN U.C. has appointed Messrs. J. Page and Son as architects for the proposed 100 additional houses.

Negotiations are proceeding for the erection of an hotel in the new Paragon Street, HULL, at a cost of about £200,000.

The LANCHESTER R.D.C. has received sanction to build another 100 houses.

Subject to the approval of the MANCHESTER City Council, a scheme for the establishment, at Mode Wheel, of a huge cattle market is immediately to be proceeded with.

The Rutson Hospital Management Committee, NORTHALLERTON, has under consideration a rebuilding scheme, at an estimated cost of £15,000.

The PREESALL U.D.C. has instructed their Surveyor to prepare a comprehensive scheme for the improvement of the Esplanade at Knott End.

Messrs. Smith and Cross have prepared plans for new branch premises for Lloyds Bank, Ltd., on a site in Yorkshire Street, ROCHDALE.

Compulsory powers to acquire land at Tunstall, for the erection of thirty-six Council houses, are being sought by SUNDERLAND R.D.C.

The WHISTON R.C., on the recommendation of their Town Planning Committee, has passed plans for 200 houses and two shops which the Liverpool Corporation propose to erect on the Speke estate.

A new Primitive Methodist chapel is to be erected on a site at Upholland, WIGAN, from plans prepared by Mr. William Thornley, L.R.I.B.A.

WALES

At a meeting of the CAERPHILLY U.D.C. the Council resolved that plans should be submitted to the Ministry of Health for the erection of twenty houses on the Grange site, Caerphilly, and thirty houses on the Pwllypant site, Llanbradach.

The Ninian Cinema, Grangetown, CARDIFF, is to be rebuilt. The scheme provides additional accommodation for over 500 persons.

At a meeting of the council of the King Edward VII Welsh National Memorial Association, it was reported that a sub-committee of the association had met the property committee of the CARDIFF City Council to discuss the question of a Cathays Park site, and that as a result the city council were now offering to allocate to the association a site between North Road and King Edward VII Avenue, and between College Road, for the erection of head offices.

About 100 acres of land near PENRHYN Old Hall is to be built upon. It is stated that about 200 houses will be erected on the site

SCOTLAND

The GLASGOW Corporation has passed plans submitted by William Griffin, for the erection of a cinema in Dumbarton Road, Yoker.

The KIRKINTILLOCH T.C. has decided to erect sixteen four-apartment and twenty-eight three-apartment semi-detached houses on a site adjoining Lenzie Road.

The MUSSELBURGH Town Council has decided to proceed with a scheme for the erection of 100 houses for persons displaced by the closing of insanitary houses.

The following figures show the progress that has been made in State-aided housing schemes in SCOTLAND to September 30, 1930: 1919 Act, by local authorities, 25,129: 1919 Act, by public utility societies, 421; private subsidy schemes, 1919 Additional Powers Act, 2,324; slum clearance schemes, 12,030; under construction, 2,207: 1923 Act, by local authorities, 4,033; 1923 Act, by private enterprise, 18,647; under construction, 969: 1923 Act, by public utility societies, 80: 1924 Act, by local authorities, 45,837; under construction, 6,059: 1924 Act, by private enterprise, 2,929; under construction, 59: 1924 Act, by public utility societies, 127; under construction, 16: demonstration houses, 17; steel houses erected on behalf of Government by Scottish National Housing Co., 2,552. Total completed, 114,126. Total under construction, 9,310. Total, 123,436.

IRELAND

The DOWNPATRICK U.D.C. proposes to erect 300 cottages, at a cost of £115,000.

The construction of the Altnaheglish Dam, for the LONDONDERRY County Borough Council, is expected to begin within the next few weeks. The reservoir will have a capacity of 500 million gallons, the dam being constructed of concrete and having a height of 100 ft. The Ministry of Labour has sanctioned an expenditure on the dam and work No. 3 of a sum not exceeding £176,000.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	•1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_1	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_3	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½*
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_1	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	•1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury ..	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster ..	Yorkshire	1 7	1 2½
B_2	Dorchester ..	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_2	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	•1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	•1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	•1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle ..	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_2	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	•1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	•1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	•1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_2	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0
Screened ballast or gravel, add 10 per cent. per yd.			
Clinker, breeze, etc., prices according to locality.			
Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0

Exceeding 6 ft., but under 12 ft., add 30 per cent.

In stiff clay, add 30 per cent.

In underpinning, add 100 per cent.

In rock, including blasting, add 225 per cent.

If basketed out, add 80 per cent. to 150 per cent.

Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd. £0 1 6

SPREAD and level, including wheeling, per yd. 0 1 6

FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6

TRIMMING earth to slopes, per yd. sup. 0 0 6

HACKING up old grano. or similar paving, per yd. sup. 0 1 3

PLANKING to excavations, per ft. sup. 0 0 5

DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.

IF left in, add to above prices, per ft. cube 0 2 0

HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1

DO. 6 in. thick, per yd. sup. . . 0 2 10

PUDDLING, per yd. cube 1 10 0

CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6

DO. 6-2-1, per yd. cube 1 12 6

DO. in upper floors, add 15 per cent.

DO. in reinforced-concrete work, add 20 per cent.

DO. in underpinning, add 60 per cent.

LIAS-LIME CONCRETE, per yd. cube . £1 14 0

BREEZE CONCRETE, per yd. cube . . 1 7 0

DO. in lintels, etc., per ft. cube . . 0 1 6

CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9

FINE concrete benching to bottom of manholes, per ft. cube 0 3 0

FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3

DO. 6 in., per ft. 0 5 0

DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3

DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.

Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod . .	30	0	0
DO. in cement do., per rod . .	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup. . .	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run .	0	6	0
FLAUNCHING chimney pots, each .	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra .	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra . .	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra .	0	0	10
WEATHER pointing, do. do. . .	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup. . . .	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each . .	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup. . . .	0	11	0
SLATE DAMP COURSE, per ft. sup. .	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. . .	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. . .	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each .	0	0	3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			

HOISTING and setting stone, per ft. cube £0 2 2

DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup. £0 2 8

DO. circular, per ft. sup. . . . 0 4 0

SUNK FACE, per ft. sup. 0 3 9

DO. circular, per ft. sup. . . . 0 4 10

JOINTS, arch, per ft. sup. . . . 0 2 6

DO. sunk, per ft. sup. 0 2 7

DO. DO. circular, per ft. sup. . . 0 4 6

CIRCULAR-CIRCULAR work, per ft. sup. 1 2 0

PLAIN MOULDING, straight, per inch of girth, per ft. run 0 1 1

DO. circular, do., per ft. run . . 0 1 4

HALF SAWING, per ft. sup. . . . 0 1 0

Add to the foregoing prices, if in York stone, 35 per cent.

DO. Mansfield, 12½ per cent.

Deduct for Bath, 33⅓ per cent.

DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement per ft. sup. £0 0 6

RUBBED round nosing to do., per ft. lin. £0 0 6

YORK STEPS, rubbed T. & R., ft. cub. fixed 1 7 6

YORK SILLS, W. & T., ft. cub. fixed . 1 10 0

ARTIFICIAL stone paving, 2 in. thick, per ft. sup. 0 1 3

DO. 2½ in. thick, per ft. sup. . . 0 1 6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:						
Portmadoc Ladies				£14	0	0
Countess				23	0	0
Duchess				32	10	0
Old Delabole	*Med.*	*Grey*		*Med.*	*Green*	
24 in. × 12 in.	£42	11	3	£45	1	0
20 in. × 10 in.	31	4	3	33	0	6
16 in. × 10 in.	20	18	0	22	4	9
14 in. × 8 in.	12	1	0	12	16	3
Green Randoms, per ton				8	3	9
Grey-green do., per ton				7	3	9
Green peggies, 12 in. to 8 in. long, per ton				5	13	9
In 4-ton truck loads, delivered Nine Elms station.						
Clips, lead, per lb.				£0	0	6
Clips, copper, per lb.				0	2	0
Nails, compo, per cwt.				1	6	0
Nails, copper, per lb.				0	2	2
Cement and sand, see "Excavator," etc., above.						
Hand-made tiles, per M.				£5	18	0
Machine-made tiles, per M.				5	8	0
Westmorland slates, large, per ton				9	0	0
DO. *Peggies, per ton*				7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square				£4	0	0
Countess, per square				4	5	0
Duchess, per square				4	10	0

WESTMORLAND, in diminishing courses, per square 6 5 0

CORNISH DO., per square 6 3 0

Add, if vertical, per square approx. . 0 13 0

Add, if with copper nails, per square approx. 0 2 6

Double course at eaves, per ft. approx. 0 1 0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med.	*Grey*		*Med.*	*Green*	
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6

DO., machine-made do., per square . 3 7 6

Vertical Tiling, including pointing, add 18s. 0d. per square.

FIXING lead soakers, per dozen . . £0 0 10

STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square . . . 0 10 0

LABOUR only in laying slates, but including nails, per square . . 1 0 0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq. . .	£1	4	6
DO., *T. and G., 1 in., per sq.* . .	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in. .	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.* .	0	2	6
DO., *African, per ft. sup.* . . .	0	1	3
Teak, per ft. sup. of 1 in. . . .	0	1	2
DO., *ft. cube*	0	14	0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube . . 0 4 6

DO. framed in floors, roofs, etc., per ft. cube 0 4 6

DO. framed in trusses, etc., including ironwork, per ft. cube . . . 0 8 6

PITCH PINE, add 33⅓ per cent.

FIXING only boarding in floors, roofs, etc., per sq. 0 13 6

SARKING FELT laid, 1-ply, per yd. . 0 1 6

DO., 3-ply, per yd. 0 1 9

CENTERING for concrete, etc., including horsing and striking, per sq. . 2 0 0

TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run . 0 0 4½

DO. 9 in. wide and over, per ft. sup. . 0 1 2

[continued overleaf

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour* ; MATE, *do.*, 1*s.* 3½*d. per hour* ; ERECTOR, 1*s.* 8½*d. per hour* ; FITTER, 1*s.* 8½*d. per hour* ; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour* ; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil. 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	1	8
DO. ¾ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1¼ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour* ; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *26 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *½ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING inbeads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.). Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour* ; LABOURER, 1*s.* 3½*d. per hour* ; FRENCH POLISHER, 1*s.* 8½*d. per hour* ; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall..	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

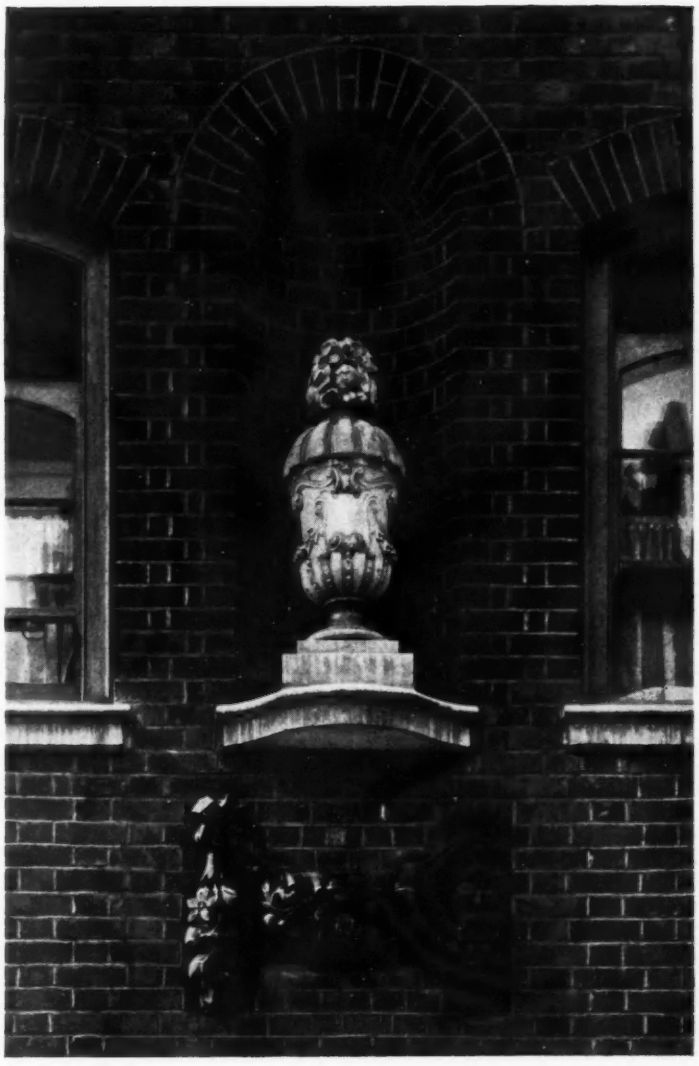
SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES

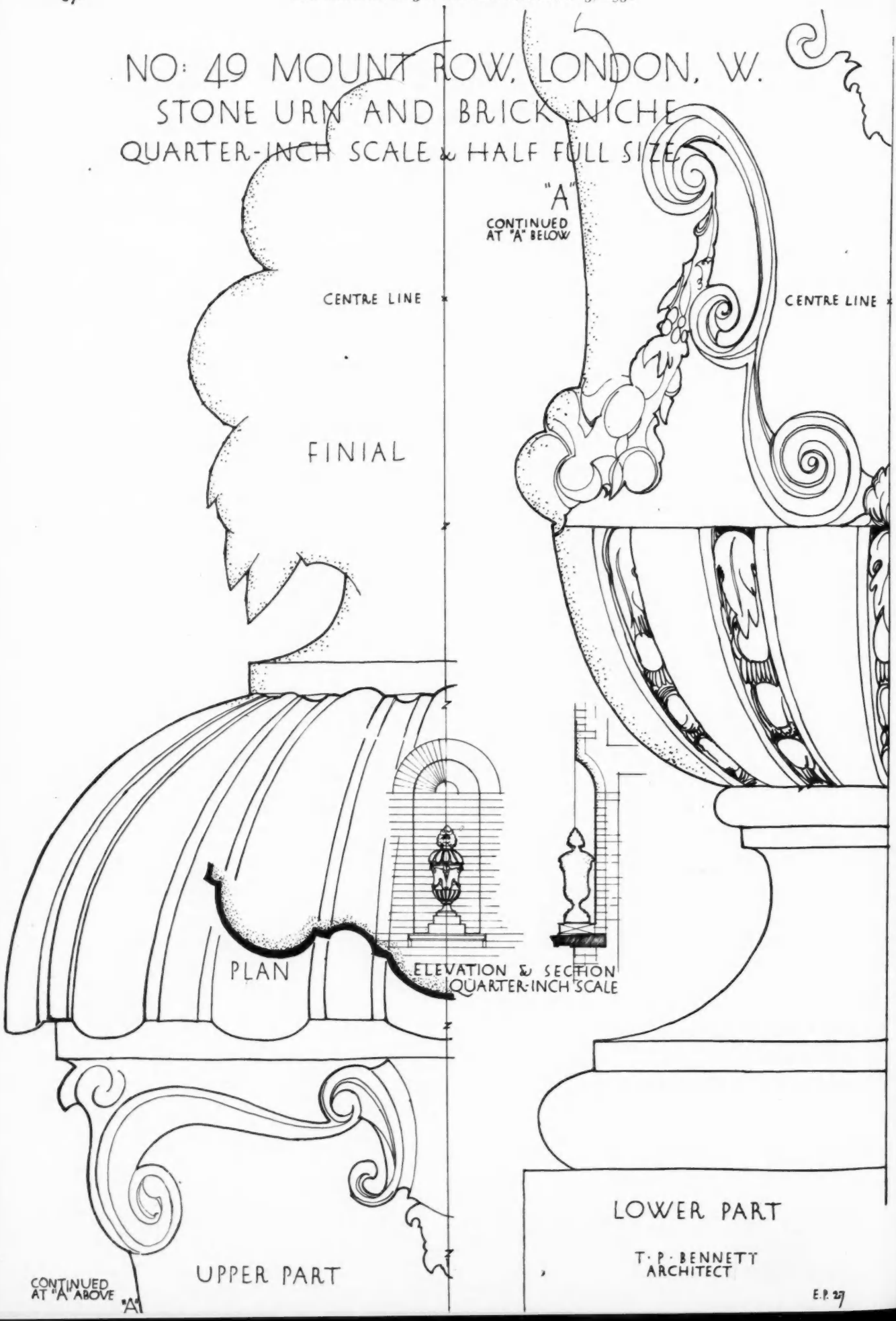


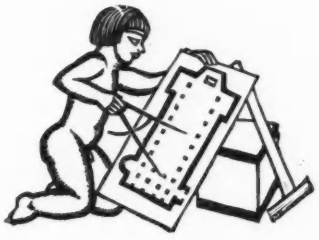
STONE URN,
NUMBER 49 MOUNT ROW, LONDON, W.
Designed by T. P. BENNETT AND SON

THIS week's photograph shows a stone urn placed in a brick niche with a rubbed brick quarter dome above, which is part of a refacing of a house in Mayfair. It is one feature of a scheme carried out in an attempt to give interest and dignity to what was originally a rather dull and uninteresting façade.

The urn, of which a detail, half full size, is given on the next page, is carved in Portland stone. It is of a traditional late-eighteenth-century type and is a fine example of modern craftsmanship; as is also the brickwork to the head of the niche which receives it. The composition in its entirety forms an effective focal point in the wall.

The drawing may be read with architects' ordinary scales.


NO: 49 MOUNT ROW, LONDON, W.
STONE URN AND BRICK NICHE
QUARTER-INCH SCALE & HALF FULL SIZE
"A"
CONTINUED AT "A" BELOW
CENTRE LINE
CENTRE LINE
FINIAL
PLAN
ELEVATION & SECTION
QUARTER-INCH SCALE
LOWER PART
UPPER PART
CONTINUED AT "A" ABOVE
"A"
T. P. BENNETT
ARCHITECT
E.P. 27



WEDNESDAY, NOVEMBER 5, 1930

HOUSING: THE COUNTER-REVOLUTION

" It should be understood that old days, thank heaven, will never come again. . . . The housing of poor people has come to be regarded as, in some part, the care of the community."

SOONER or later it was bound to happen that the standards of government and municipal housing which have contributed so largely to the rehabilitation of the country after a period of extreme shock should be attacked with accusations of extravagance and idealism. It is fitting that the first stone should have been thrown by an Association representing the interests of a section of the building community which was mainly responsible for the unimaginative housing of pre-war days. Be that as it may, the charge has been made, and, as often occurs, its bias towards financial " interestedness " is steadied by more than a grain of allowable criticism against the system of open development by which post-war housing has been characterized.

Briefly, the report of this Association, the gist of which was contained in a letter in the JOURNAL of last week, suggests that it is time that housing should be turned over to private enterprise, so that local authorities should be free to tackle slum clearance.

Private enterprise, the report avers, can build houses to rent at from 7s. 6d. to 9s. 6d. per week if the 1924 Act subsidy is maintained as an annual grant, or, better still, as a block grant of £100 per house, if the restrictions upon rent, upon the density of building, upon the amenities of road construction, open space, and if all the other safeguards against deterioration ARE ABOLISHED.

It is very likely that the Association would hotly deny the truth of this indictment, yet their report implies that housing is what it was in pre-war days —a form of investment, and not the housing of poor people. The report suggests that the housing policy instituted by the Conservative Government, and supported vigorously by the present Government in both its terms of office, is wasteful and idealistic, and that nothing can be done towards providing slightly cheaper forms of houses if these ideals are not thrown entirely to the winds and the field given over to the old-time jerry-builder.

It would be an evil day for this country if the Government were to accept the spirit of that report. It should be understood that old days, thank heaven, will never come again. We have made many mistakes since the war, and private enterprise has been responsible for a mass of meretricious and irresponsible house-building, but we have at least set ourselves higher standards of development, and the housing of poor people has come to be regarded as, in some part, the care of the community. The idea of mean rows of mean houses has become, definitely, a thing of the past.

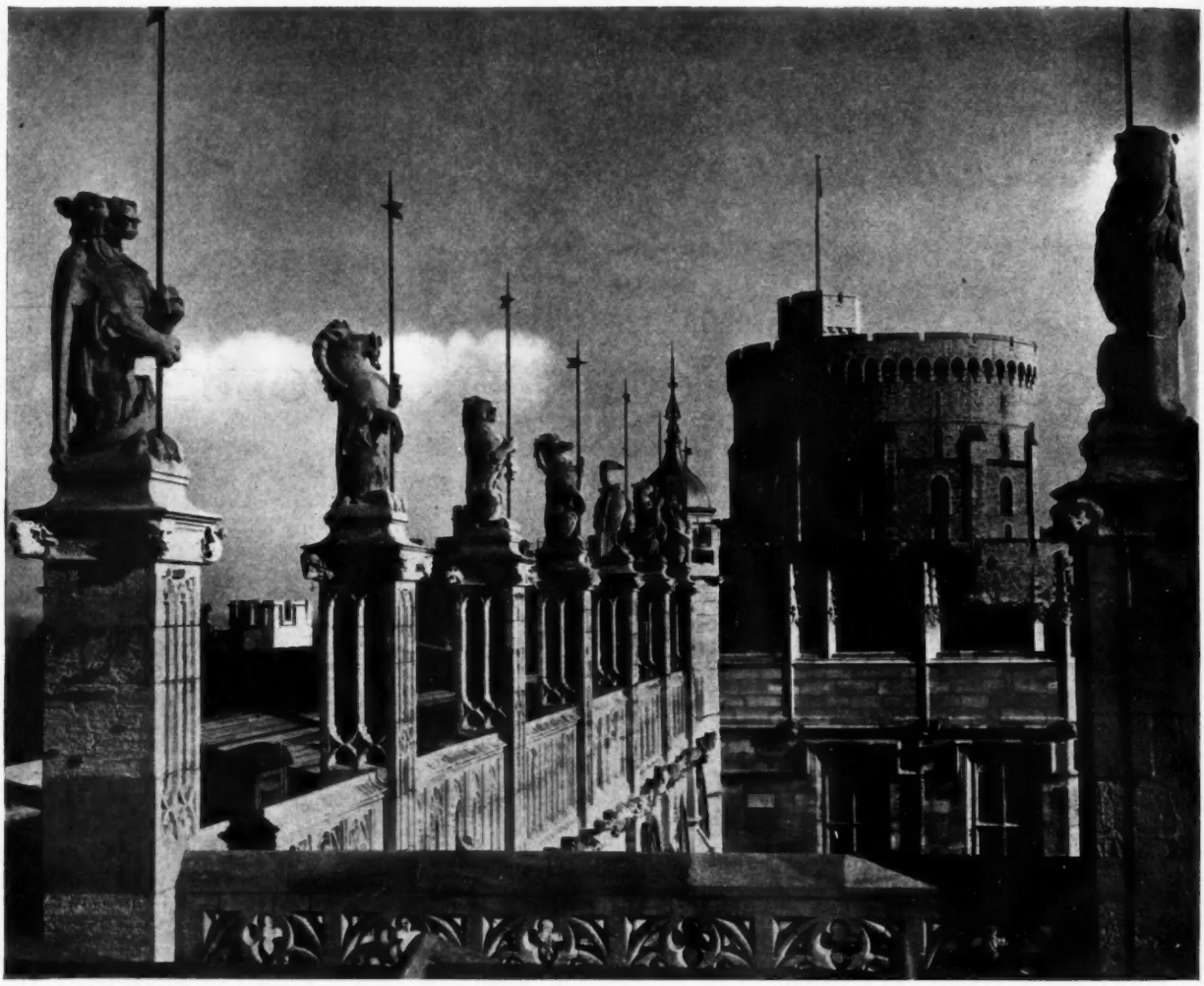
And now we are asked to drop these standards and this better way of thinking, to adopt the bad old property investors' ideas, and to make money the one incentive where now we have other and better considerations to couple with it.

It would be an evil day, we repeat, if the housing of the working classes were to be handed over to the Philistines; and architects more than others, and for purely unselfish motives, would have cause to regret the passing of an era of housing that was the reflection of their sense of artistic responsibility to the community.

No. Rather than a relaxation of principles which have gained nearly universal support, let us again examine the system in order to see why and in what way it fails to supply the needs of certain sections of the population. To increase density and length of blocks, to lower standards of road-making, is to bring on disintegration of the whole fabric, which architects should rather be prepared to add to than destroy.

We suggest that this manifesto, for such it is, should be very carefully examined by the R.I.B.A. It contains the seeds of dissension, and foreshadows the possibilities of new lines of approach to the great problem of housing the poorer strata of the working classes.

*** *At the moment of going to press we have received an important letter on this subject from an experienced authority on housing; this will appear in the issue for November 12.*



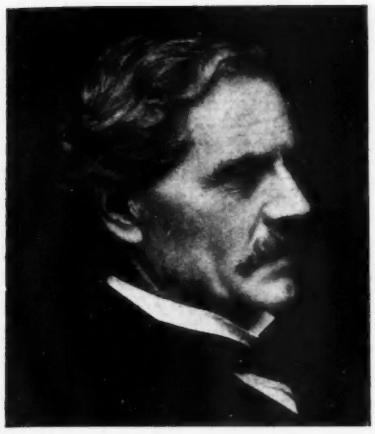
THE "KING'S BEASTS" AT WINDSOR

Yesterday, November 4, the historic Garter Chapel of St. George's, Windsor Castle, the restoration of which is now complete, was reopened. The King, as head of the Order of the Knights of the Garter, and the Queen, as its Lady, were present at the service. The above photograph, taken looking towards the Round Tower, shows the "King's Beasts," an important detail of the restoration work, which, in all, has involved an expenditure of £175,000.

The resurrection of the "King's Beasts"—first set up by Henry VII, then removed by Sir Christopher Wren—forms a romantic episode in the history of St. George's.

The church was erected at the end of the fifteenth and the beginning of the sixteenth centuries. The "Beasts" were part of the original design, and the loss of them has been a serious detriment to the beauty and probably also to the stability of the building for some two hundred and fifty years. The trouble experienced with the roof of the chapel has been attributed to their absence, due to the fact that their weight was needed for steadying it.

Sculptured by Mr. Joseph Armitage, they are not replicas of the old "Beasts," which, in fact, had long since disappeared, but they are instinct with the spirit of the old work.



NEWS & TOPICS



The Rt. Hon. J. Ramsay MacDonald and the Rt. Hon. the Earl of Derby, K.G., G.C.B., G.C.V.O., etc., who, being deemed by the Council of the R.I.B.A. to be "eligible and qualified" for membership, were proposed by that body for election as Honorary Fellows at the general meeting held to inaugurate a new session at No. 9 Conduit Street, on Monday.

AT THE R.I.B.A

AT the opening general meeting of the session Sir Banister Fletcher, F.S.A., the President, announced that the Council propose to submit to His Majesty the King the name of Sir Edwin Cooper, A.R.A., as the recipient of the Royal Gold Medal for the year 1931.

*

Sir Banister Fletcher, in the address with which he inaugurated his second presidential year, passed in review the recent achievements and present activities of the Institute, among which the development scheme, registration and the new premises in Portland Place loom largely. His peroration made a telling point about the unique position of architecture. It was indeed wholesome for us to be reminded that no man living within civilization can shut himself off from the sight of some form of architecture—good, bad or indifferent—though he evade manifestations of all the other arts.

MR. GREY WORNUM'S "DIAGONAL VIEWS"

In choosing the intriguing title, "Diagonal Views," for his presidential address to the Architectural Association on Monday of last week, Mr. G. Grey Wornum may or may not have had in mind a new *modus operandi* arrived at by referees for scrutinizing activities on the football field along a diagonal line. At all events he has the keen eye proper to a referee and took a very similar stance in looking across the present-day field of architecture. It was inevitable that in presenting a cross-section of it he should include references to the technique of functionalism, and these were made all the more telling by being thrown on the screen of the mind side by side with cross-sections of earlier eras.

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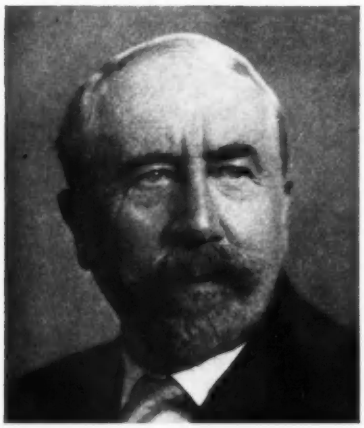
He was able to cite buildings where functionalism had ruled towards an innate beauty and dignity, comparable with that characteristic of the best eighteenth-century work. But both he and Sir Richard Paget, who joined in the subsequent discussion, showed that they were alive to the insidious dangers of the cult. All too easily it might lead designers into just such a dead end as the traditionalism that has persisted right up to the present day in clothing the buildings of a hundred years past, buildings called into being by the industrial revolution of the beginning of last century, with ornaments from this or that style. Verily, man cannot live by functionalism alone.

FUNCTIONALISM FURTHER DISCUSSED

Functionalism is inevitably a burning topic of the day. The "Supper Discussion" of the Architecture Club last week on "Function as expressed in Modern Swedish Architecture" was a very pleasant affair, and revealed the fact that there is among its members a real zest for debate and the requisite cleavage of opinion such as results in the special quality which should belong to a deliberative body. It is difficult to exaggerate the value of such frank interchanges of views between architects themselves and laymen interested in architecture. Unfortunately, owing to indisposition, Professor Reilly was not able to open the debate as had been arranged, but his place was taken by Mr. Charles Marriott, who succeeded in putting the case for the Stockholm Exhibition in a provocative way. A remarkable feature of the debate was that even among the "modernists" there appeared to be a strong tendency to express dissatisfaction with the Exhibition as a whole. Not that there was much open hostility manifested, because most of the speakers appeared anxious to discover what was best in such an interesting architectural experiment. The gaiety of the colouring, largely due to the repetition of flags, the lightness and cheapness of construction of the various booths were duly praised. But some of the experienced planners of the "traditionalist" school could not help being a little scornful of the illogical and chaotic layout of the Exhibition, and the omission of its designer to take full advantage of the magnificent site.

*

And as for "function" in architecture, which was to have been the main problem to be tackled, the debate indeed revealed a confusion of tongues. Many of the speakers appeared to be quite certain what it was not. Mr. Ivor Brown revealed a prejudice which I do not remember having encountered in his dramatic criticisms, namely, a passionate hatred of old oak. He was sure that whatever a "functional" building should or should not be, it must at least be entirely devoid of old oak, that worst of all the symbols of architectural sentimentality. On the other hand, Mr. Clough Williams-Ellis complained that there was not enough sentiment in the design of the small houses exhibited at Stockholm, and that they could only be lived in by people with an almost inhuman gift of tidiness. He thought, however, that the people who will really be able to appreciate "functional" architecture "are now busy with their bottles."



Mr. Rudolf Dircks, who is about to retire from the post of librarian of the R.I.B.A. He has held it for thirty-eight years, during which period he has seen a four-fold increase in membership of the Institute; for the past nine years he has been editor of the R.I.B.A. Journal.

THE RETIREMENT OF MR. RUDOLF DIRCKS

The retirement of its librarian will leave the R.I.B.A. bereft; for Mr. Dircks is recognized not only as a librarian but as a person, and during the thirty-eight years he has been in charge of the library he has been well known to all who have frequented No. 9 Conduit Street, and has established friendships with many; in fact, as one of those friends lately remarked, his personality has given the Institute an atmosphere of hospitality and cheerfulness rarely associated with a learned society, and any members who may be unconscious of this debt to him will assuredly become aware of it when he goes.

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When Mr. Dircks first took charge, the duties of librarian did not call for the whole of his time. He was then, and for many years after, a writer contributing general articles and stories to various magazines, and one of a group of men of letters some of whom have since become famous. He was, however, more particularly known as a contributor on art subjects to *The Saturday Review*, *The Art Journal*, *The Outlook* and other leading periodicals. His work as an editor in this field is recorded in the long list of entries under his name in representative libraries; and his monograph on Rodin, published in 1908, first introduced the sculptor to English appreciation. The friendship then established between the two men lasted till Rodin's death, and the book is still sold in France.

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In 1893, when Mr. Dircks became its librarian, the Fellows and Associates of the Institute numbered, we believe, 1,456, and the grand total of all degrees of membership, 2,122; today the figures are 4,149 and 9,852, and the work of its librarian long ago increased so as to take up the whole of his time. A full account of the library, which contains some 25,000 volumes and is reputed to be the first architectural library in the world, is to be found in a paper read before the Institute by Mr. Dircks some years ago; but the duties of the librarian and his assistants are made heavier than would generally be supposed by the questions, calling for more or less research, which are daily asked by post, telegraph and, particularly, by telephone. That the Institute should be able to extend to its members, and others, the service of free library research, is an admirable thing; but the maintenance of such a service must obviously depend upon a reasonable discretion in those who avail themselves of it.

Nine years ago Mr. Dircks became also editor of the *R.I.B.A. Journal*, and, as is well known, his services to the Institute have often extended beyond those of librarian, as when, at short notice, he took over the arrangements of the R.I.B.A. section at Vienna of the International Architectural Conference. For about thirty years he was Secretary to the Architects' Benevolent Society; and for four years during the war—first as secretary to the architects' war committee and afterwards as its vice-chairman—he was responsible for collecting and administering the Institute's War Loan Fund, totalling between twenty and thirty thousand pounds, and in organizing the Civic Surveys of Greater London, and of the provincial centres. Architects who gave themselves to the furtherance of schemes for relief during those difficult years are warm in their acknowledgment of the debt to Mr. Dircks's single-minded energy; and those who benefited remember in gratitude his unfailing kindliness, cheerfulness and courtesy. He has now reached an age when men who are able to do so are glad to retire, and preparations for reinstalling the library in the shortly-to-be new Institute premises make the moment a suitable one. Few men go into private life with such assurance of leaving affection and esteem behind them and of taking with them the warm good wishes of so many friends. Mr. Dircks has wide interests and a keen enjoyment of many sides of life, so that for him leisure will be no burden, and all may wish him happiness with light hearts.

LIGHT AND AIR IN LONDON

I wrote, last week, of the fire-risk veto on higher buildings in London. The interim report of the conference of representatives of the R.I.B.A., the London Society and the Town Planning Institute, the text of which is now available, takes a broader view of the problem of height-regulation. Far from condoning the present maxima, it is of opinion that only wide streets and big lots can carry buildings from 80 to 100 ft. high, and that immediate steps should be taken to regulate the increase of height and volume permissible under existing rules.

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With irresistible logic it points out that there must be a definite relation between street capacity for vehicular and pedestrian traffic and the floor area of the adjacent buildings served, and considers that heights should be adjusted to the actual adequacy of light and air instead of to the private rights irrespective of such adequacy. Furthermore, a definite scale should be laid down to govern the width of streets, having regard to the use of the neighbourhood served, and any owner who proposes a material enlargement of floor space should be required to provide equivalent space for the resulting additional traffic.

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The conference, in fact, comes down heavily for a comprehensive zoning scheme, urging special consideration for, among others, historic areas and the neighbourhoods of important buildings, ancient or modern. The mere fact that a new building faces a large existing open space in no way justifies any special increase in height. It is believed that by the adoption of a zoning policy more latitude could be given to designers, with a resultant gain in the quality of the buildings erected in the various districts. And special stress is laid on the fact that, in these latitudes, the maximum angle of the sun in winter is only 15 degrees, so that an angle of 45 degrees cuts off the light of the sun for a period of six months.

NEW CHAIR AT LONDON UNIVERSITY

The week has brought an announcement that, although it primarily concerns London, is bound to mark the beginning of a far-reaching influence. London University contemplates the foundation of a new Chair—in the History of Art; and as part of the scheme for training art critics and experts an Institute, presided over by the professor holding this chair, is to be provided on the site awaiting development for University purposes in Bloomsbury. It is some three years since a provisional committee, including among its members Sir Martin Conway, Professors Ernest Gardner and A. E. Richardson and Mr. Samuel Courtauld, met under the presidency of Lord Lee of Fareham. Their aims have been lucidly set forth by Lord Lee in a long article in *The Times* of October 27.

★

"Throughout their deliberations," he sums up, "the promoters of the scheme have endeavoured never to lose sight of the practical and business considerations which must largely determine success or failure . . . but they have also been animated by the belief that in these hard and unlovely times too much attention is perhaps being concentrated on material things and too little on things of the spirit." Here is a thing that needed doing, and few will quarrel with Lord Lee's reasons for London alone being the place to do it.

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With the lead shown by Mr. Courtauld, who has undertaken responsibility for the building and equipment of what it is proposed should be known as "The Courtauld Institute of Art," and for guaranteeing a share of the necessary endowment; by Sir Joseph Duveen, who has promised £20,000 towards the undertaking; by Sir Martin Conway, who proposes to present to the Institute his important collection of photographs and other reproductions of works of art; and by Lord Lee himself, who contemplates bequeathing to it his own treasures, it is unthinkable that the further £100,000 required should not be found to make the times less hard and more lovely for posterity.

LONDON SQUARES

When the Royal Commission on London Squares presented its report it urged that Parliament should give legal effect to its recommendations at an early date. This Parliament was prepared to do at that time; but, as everyone knows, Parliament has not been able to get through anything like the amount of work laid down in its programme. It has therefore been left to the L.C.C., three years after the presentation of the report, to draft its own Bill and get it before Parliament with the least possible delay. This Bill, the London Squares Preservation Bill, 1931, will cover the essential points of the Commission's report. Once passed, attention must then be directed to promoting legislation to deal with the detailed recommendations, which lack of time has not allowed to be included in this Bill.

COMELY STEEL BRIDGES

The British Steelwork Association is to be heartily congratulated on its decision to produce a series of designs for steel bridges in which well-known architects are to collaborate with the engineers. All up and down the country the reconstruction of old and the construction of new roads will involve the emplacement of new bridges, inevitably either of steel or of concrete. Many graceful things have been flung across railways and river-beds in the latter material. Nevertheless, we can do with more; and the mere fact that the steelmakers evince a spirit of emulation brightens the prospect. They could hardly have done better than entrust their trial essay, which is to be submitted for the new bypass road at Maidenhead, to Sir John Burnet and Partners and Sir Douglas Fox and Partners.

A PUZZLE IN BRICKS

I was discussing the housing schemes of the London County Council with an architect the other day, and was inexpressibly shocked to learn that foreign bricks had been, or were being, used instead of British. My architect friend, who, by the way, is in no way connected with the schemes, remarked that the future housing programme of the Council would entail the use of at least eight or ten hundred million bricks during the next five years. A great uneasiness settled upon me when I realized how much of this material might be ordered from abroad. What is the solution of this extraordinary riddle? Are our British firms unable to supply a sufficient number of bricks to meet the demands of the Council, or are their prices too high? I was assured by my friend that the needs of the Council for the next five years could easily be met by British brickmakers. If, then, it is a question of cost, would it not be wise for the Council to reflect how foolish it might be to think of a lower-priced foreign brick in view of the huge amount of unemployment in this country? A British material of higher cost might eventually prove to be the more economical.

G. B. SHAW'S IMPAIRED VISION

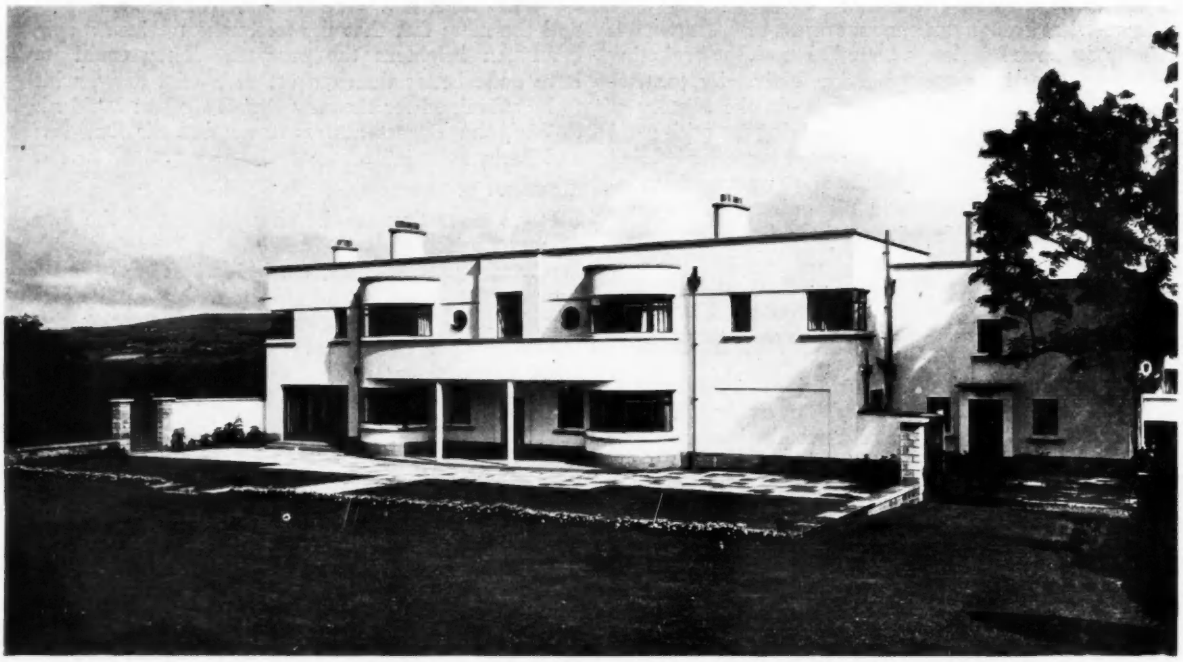
Mr. George Bernard Shaw has been reported to the Welwyn Rural District Council for having begun the erection of an engine room at his Hertfordshire home at Ayot St. Lawrence before depositing plans with the local authority. The Council decided to remind Mr. Shaw of the requirements of the local bylaws. G. B. S., by undue profundity, has perplexed his thought. Venus herself would vanish from the firmament by a scrutiny too direct or too sustained.

A SIGN OF THE TIMES

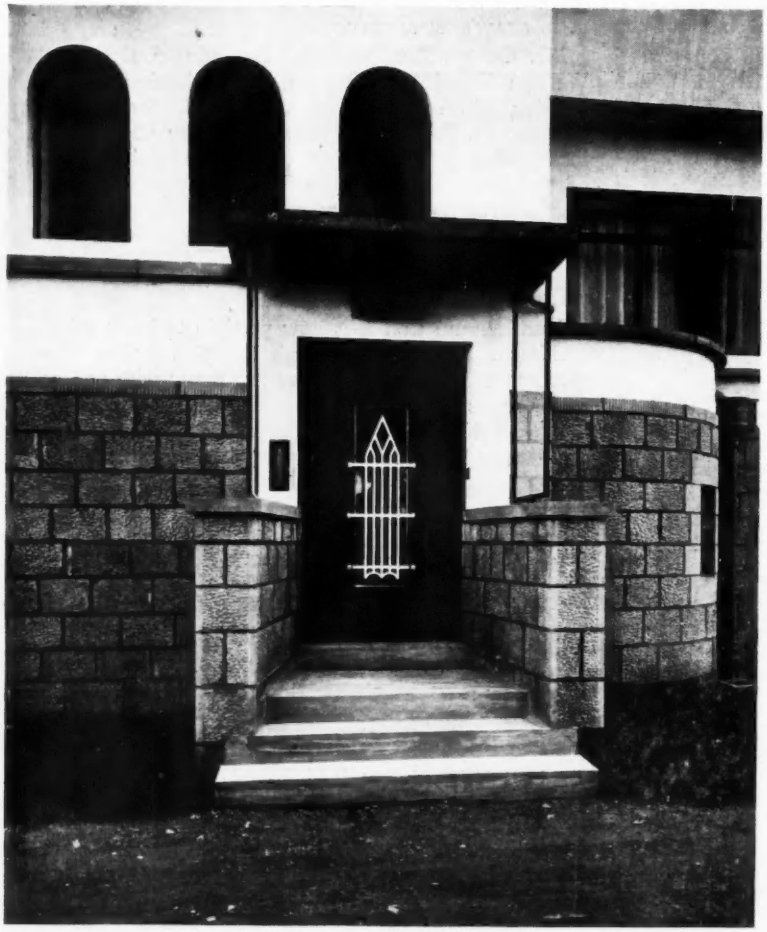
I understand that it is now possible to learn all about architectural acoustics through the post by means of a correspondence course. There are many who will prefer to, or needs must, take advantage of this form of tuition in a special subject. I can think of the student living in the country district, but particularly of the older practitioner. Crabbed age and youth cannot learn together. ASTRAGAL

IN our issue of October 22 we published a reproduction of a leaflet issued by "the —— Tracing and Planning Co." We much regret that the caption beneath the illustration indicated that the designs referred to were not original.

We are now assured that the whole of the designs in question, published and sold by the Adelphi Tracing and Planning Company, are, in fact, the sole and original work of Mr. G. A. Pilborough, architect, who carries on business under that name, and we offer him, hereby, an unqualified apology for the erroneous imputation which we conveyed.



The garden front faces south. The main walls are brick, 16½ ins. thick, with a 3-in. cavity, and faced with textured stucco. The roof is of concrete, covered with rock asphalt. Balconies are reinforced concrete ; and floors are concrete, covered with joists and boards.



The main entrance doorway on the north front is sheltered by plate-glass "wind screens," and contains a concrete letter-box. The architect's working drawing appears on page 686.

A MODERNISTIC

DESIGNED BY

FIVE OAKS, Ben Rhydding, Yorkshire, is built on the site of an earlier house which was completed about 1902, and destroyed by fire in 1927. The site slopes steeply from south to north, and has wonderful views to the north across Wharfedale, which here runs east and west. To the south there is little except the garden of the house. There was the advantage of a garden already formed, but the disadvantage of the ruins of the former house, which had to be cleared.

The leading problem facing the architect building on a site of this sort is one of view *versus* sunshine, and in this case it was decided that the sun was the more important, but the view was not to be forgotten. The former house was entered from the south, and visitors had to cross the south, or garden, front. In the new house it was decided to enter from the north at any cost, and retain complete privacy on the garden front. Owing to the fall of the ground, this involves a front entrance on the basement, or lower ground-floor level, and access to the hall and main ground-floor level is up eleven shallow steps.

Having settled considerations of general layout, the question of the style of the building came up for review. Local tradition prompted a stone house with a stone-slated roof in the Yorkshire manor-house feeling, while the importance of light and sunshine indicated a complete breakaway from the customs of the district.



The entrance or north front affords magnificent views of Wharfedale and the surrounding countryside. Owing to the steep slope of the site the main entrance to the house is at basement level. Over the garage, which accommodates four cars, is the chauffeur's flat.

COUNTRY HOUSE

JOHN C. PROCTER

The client was treated fairly by being given two schemes, and without hesitation backed the one now built, which might be called transitional, and perhaps a too-timorous approach to the architecture of today. While not cut down to the bare bones of functionalism, considerations of style have not hampered planning or fenestration. The result is a house full of light, with a feeling of spaciousness for its size, and one voted very easy to run.

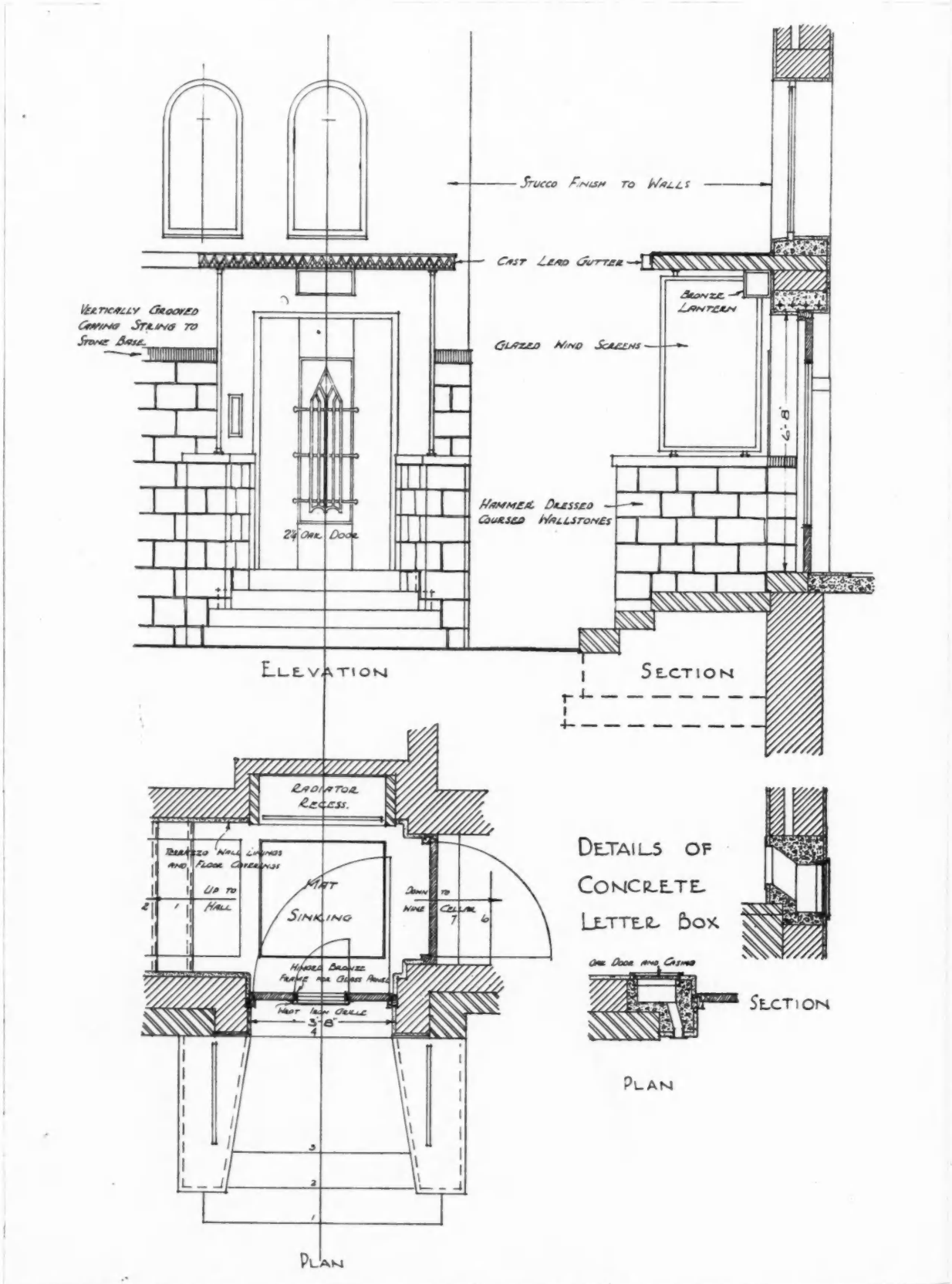
The front entrance on the lower ground-floor level is flanked by a wine cellar, a laundry, workshop, boiler-house for domestic hot-water supply, and a coal-house into which a lorry can be backed.

The garage for three or four cars has a 30-ft. clear opening, with "round-the-corner" sliding doors. Outside it is a glass-roofed car-wash, 41 ft. by 15 ft., spanning the yard.

On the ground floor of the house the ante-room is separated from the hall by a curtained arch, and access to the sitting-room is through double doors, so that these three rooms may be used *en suite*. The sitting-room has windows on three sides, that to the south being of the folding type, so that practically the whole south end of this room can be thrown open to the garden. All the ground-floor doors are of hospital type, in quartered walnut, and an ebony line takes the place of any moulding. These doors have special furniture in antique silver.

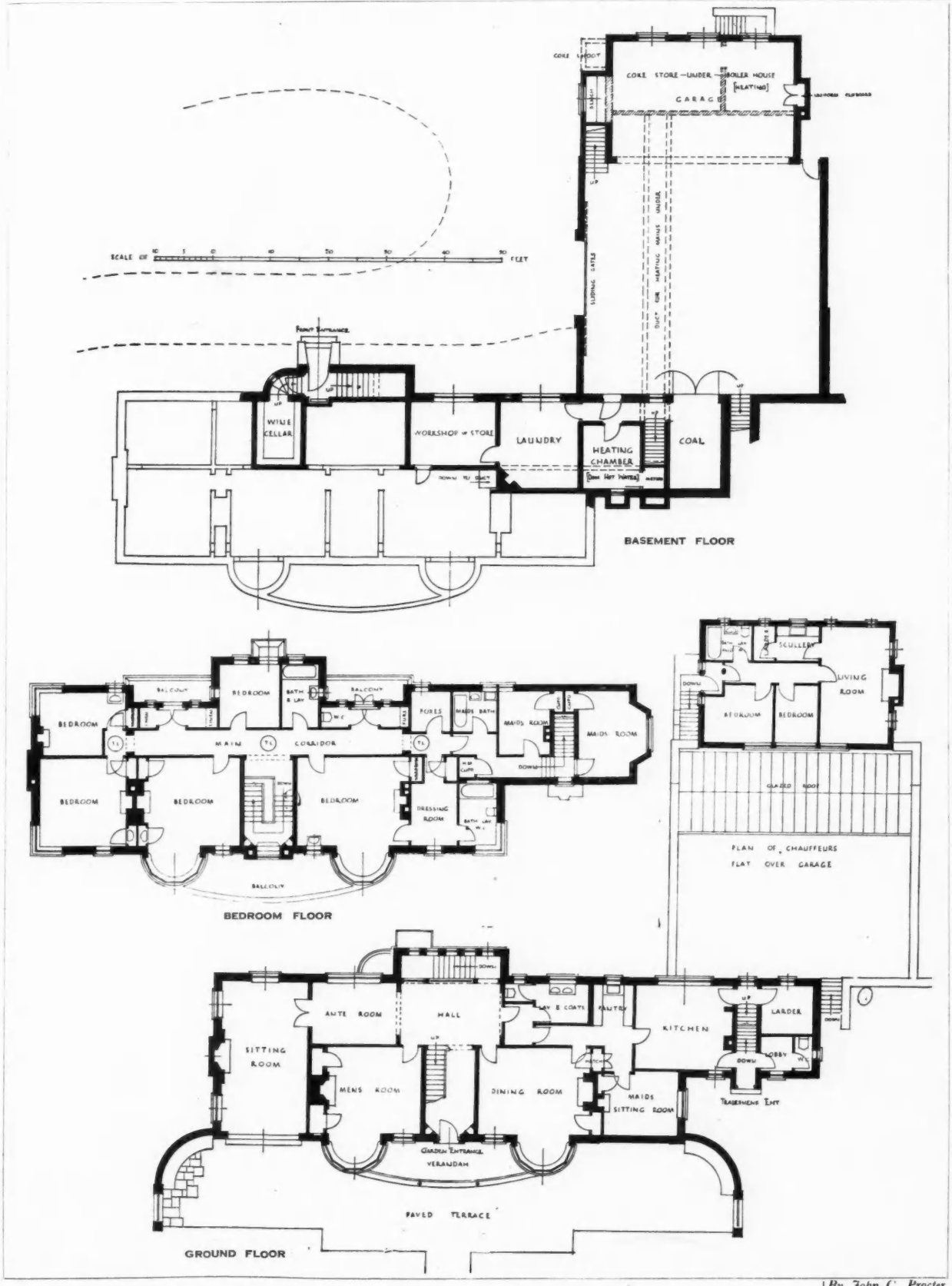


A view looking through the garden gate along the flagged terrace. The garden front offers complete privacy, access to the house being planned from the north side.



House at Ben Rhydding, Yorkshire.]

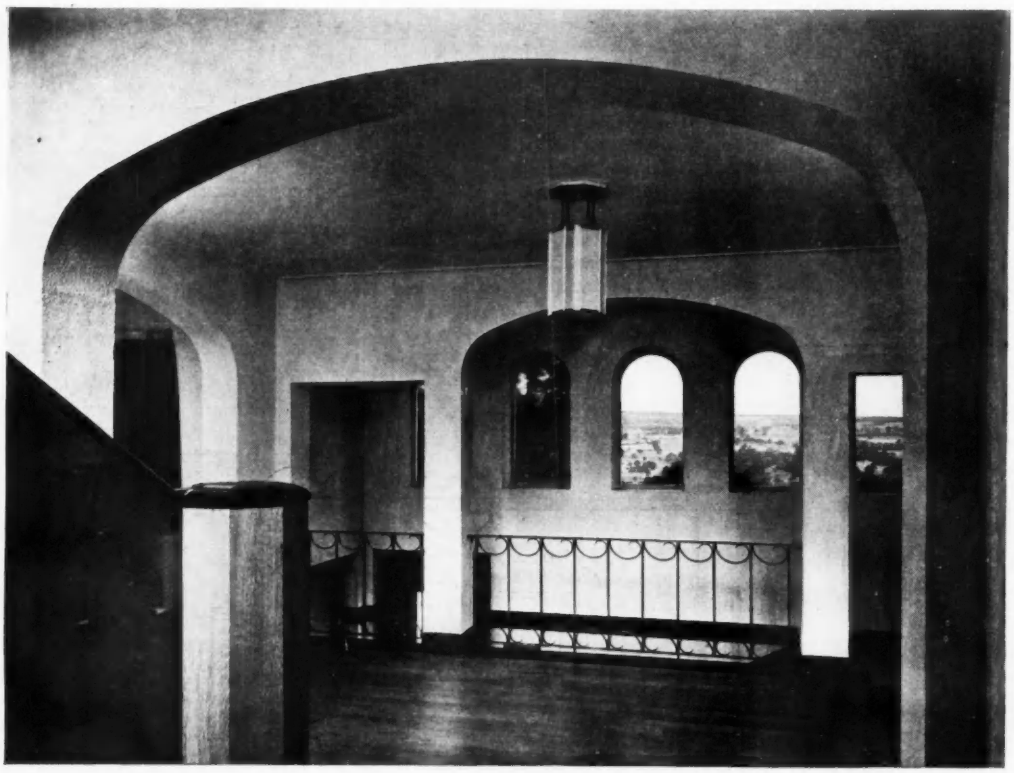
The architect's detail drawing of the main entrance doorway, a photograph of which appears on page 684.



[By John C. Procter.

Plans of the three floors. The house faces north, and the flat roof is reached from the north-east balcony by an iron staircase.

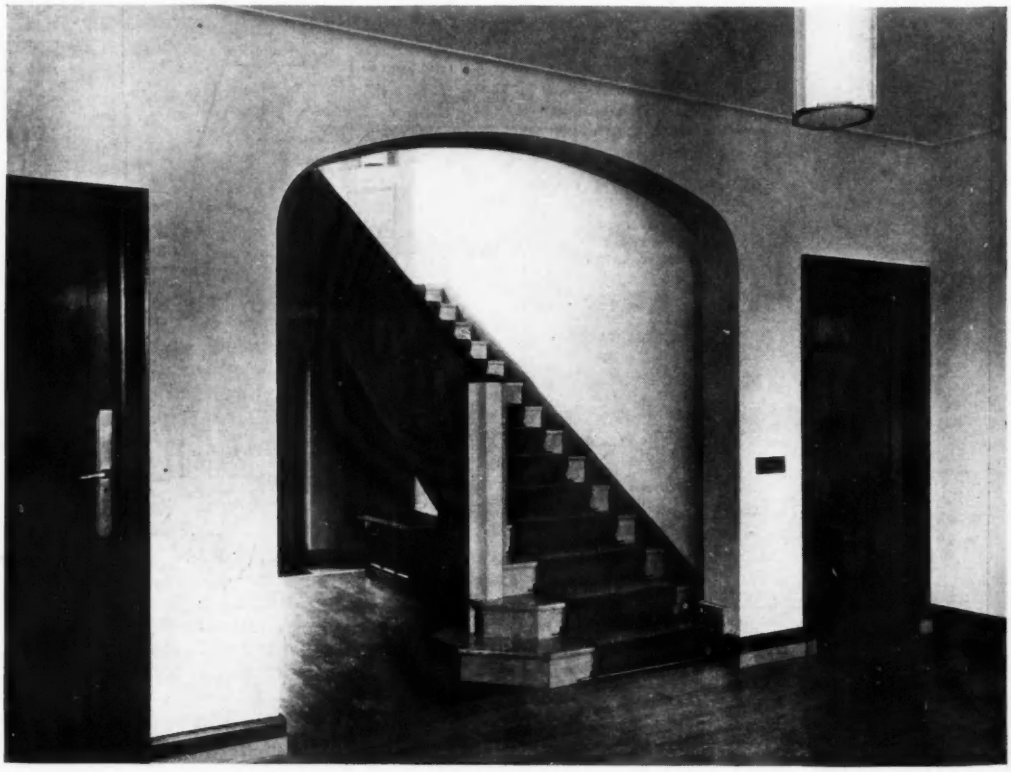
C



In the entrance hall. Looking from the foot of the staircase, through the semi-elliptical arch towards the five semi-circular-headed windows on the entrance front.

Head showi windo of th mostly a slig plaste the gr temper

louse at Ben Rhydding, Yorkshire.]

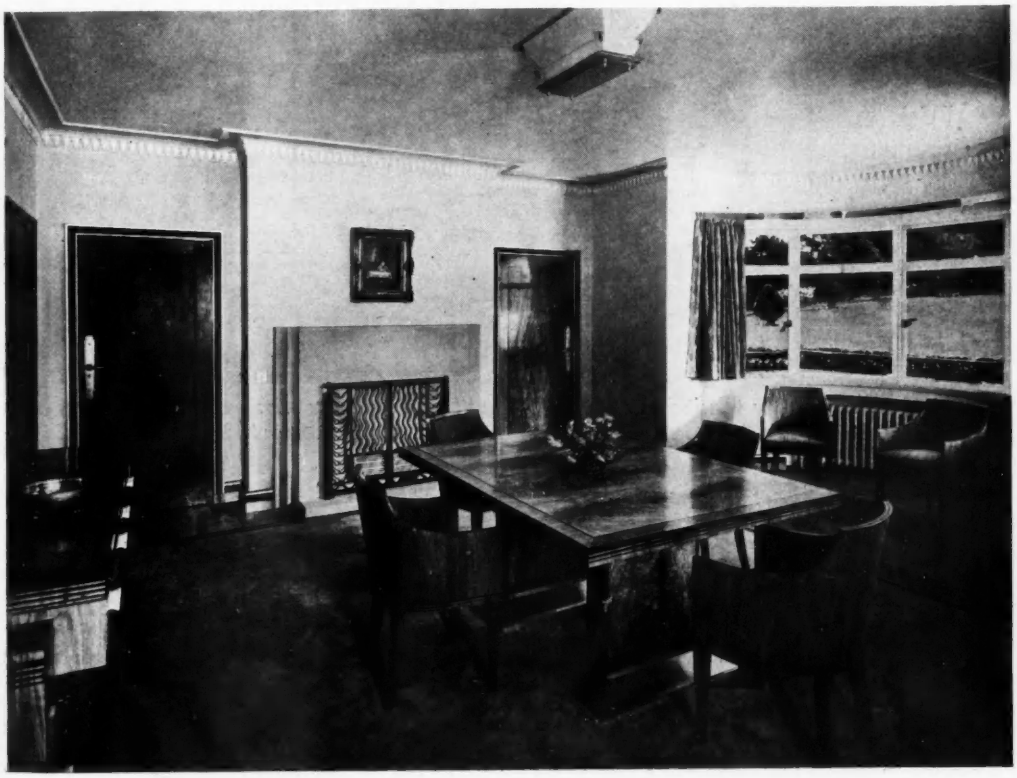


In the entrance hall. Looking towards the staircase, and from a viewpoint opposite to that of the photograph reproduced above. The staircase is in Austrian oak, coloured pale straw.



Head of staircase, showing balcony window. The walls of the house are mostly finished in a slightly textured plaster; painted on the ground floor, distempered on the first.

[*By John C. Procter.*



Dining-room. Skirtings and architraves are largely granite-stippled in a warm smoke grey. In the dining-room they are ebony and silver. Floors in main rooms are light polished oak.

CHEMICAL LABORATORIES AT NORTHWICH

DESIGNED BY L. H. BUCKNELL

THE site of the new laboratories for the Imperial Chemical Industries, Ltd., lies west of the firm's main works and offices at Northwich, Cheshire. It is in the form of a truncated triangle, and is fairly flat. The main approach is at the west (narrow end) of the triangle, and the rail approach for goods is at the east end. Owing to the nature of the research work (both chemical and engineering) carried out, it was considered desirable to incorporate in the scheme all dependent units such as administrative offices, library, etc.

The plan is disposed in three main groups. In the front, on two floors, with fixed benches on each long side and down the centre of the room. The services to the side benches are run along the walls, and special service channels are sunk in the floor for the centre benches and wastes. Two ranges of fume cupboards are installed.

In the research laboratory the benches are not fixed, but are of a lighter type and capable of being moved as required by the work undertaken. This laboratory is provided with fume cupboards, balance and galvanometer rooms. The arrangement of services and wastes is as for the analytical laboratory. Adjoining are six offices for research chemists' private work.

The heating and ventilation plant, consisting of six units, each containing air washer, heater and fan, is situated under the chemical stores. It is a double duct Plenum system. For the greater portion of the building the ducts are carried under the floors and in the roofs, and the rooms are fitted with mixing dampers to regulate the temperature to individual requirements.



The central block of the main front, showing the principal entrance. The elevations are of white bricks, with stone dressings and with metal windows of good proportions. The front portion of the roof is covered with rustic slates and the back with grey slates.

is the administrative section, the centre is occupied by the chemical stores, lavatories and small offices, and at the back are the main laboratories and engineering shops.

These run east and west and are north top- and side-lighted. A gallery connects all the units on two floors, and continues between the analytical and the research laboratories. This gallery (like the G.E.C. laboratories at Wembley) is designed to accommodate all the main service pipes and allow of their easy connection to any point.

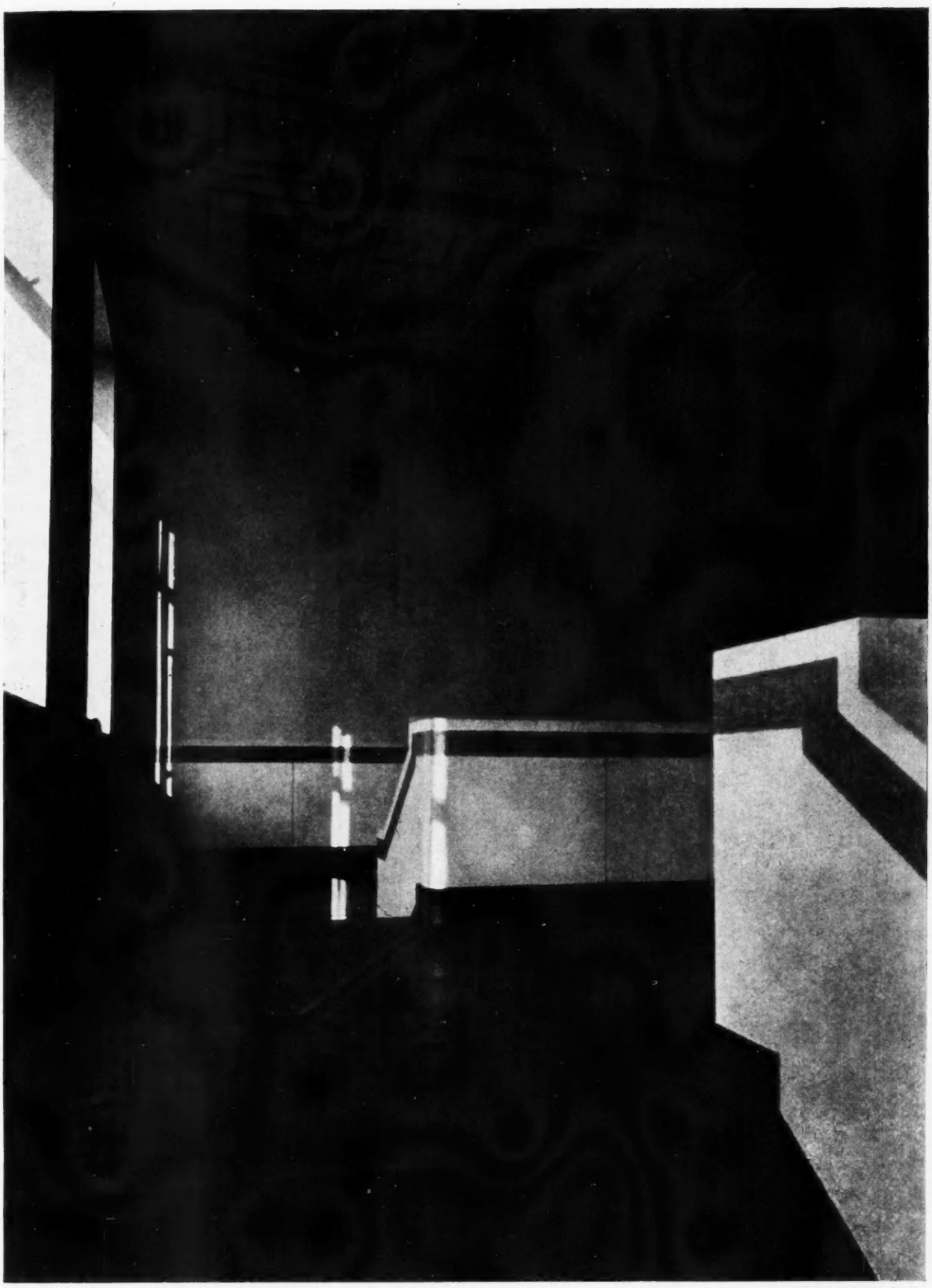
The analytical laboratory is equipped

The semi-technical laboratory is equipped for carrying out experimental work with light machinery, and contains an electric travelling crane. A flexible system of engine beds was required for the machinery owing to the changing type of work dealt with. Sleepers were laid flush with the floor finish and a narrow-gauge railway provided. Adjoining the laboratory are a 50-ft. tower and six offices for engineers.

The arrangements for the engineering workshop are similar to those for the semi-technical laboratory, except that provision had also to be made for heavy

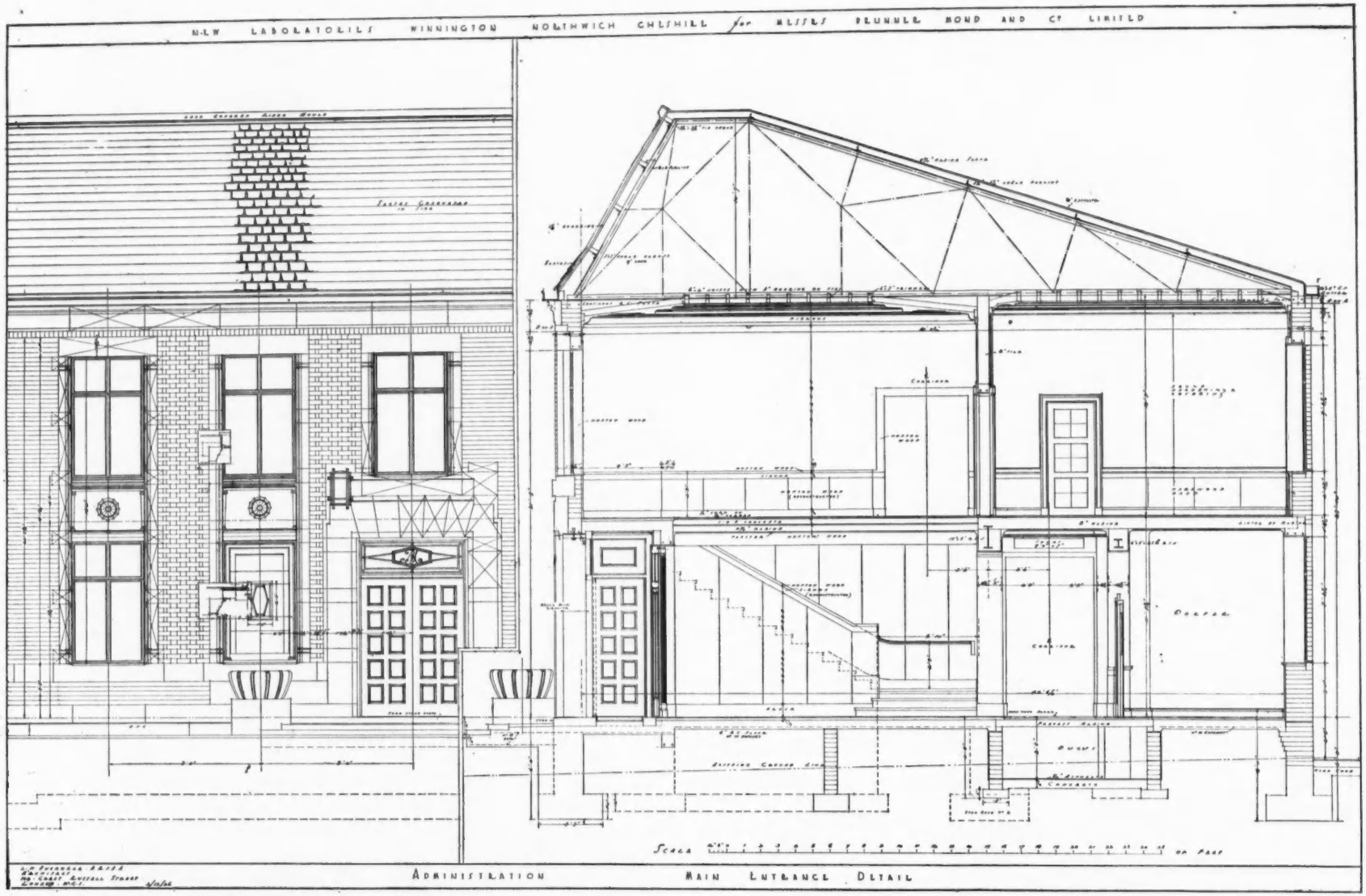
Internally, all finishings are designed to be as simple and plain as possible and to avoid the collection of dirt.

The conference room is acoustically treated for meetings, lectures, etc. A lantern screen is provided, concealed in the head linings of the double doors connecting to the adjoining room. The lantern is operated from the latter room. The walls above the dado are lined with Cabot quilting covered with plain silk; the joinery and furniture are in Indian laurel wood, inlaid with satinwood; and the floor is of compressed cork.



Chemical and Engineering Laboratories, Northwich. [*By L. H. Bucknell.*

The staircase landing on the first floor. *The wall linings are of fine terrazzo in slabs, and the stairtreads are of oak.*



Chemical and Engineering Laboratories, Northwich.] [*By L. H. Bucknell.*

The architect's detail drawings of the main entrance to the administrative department, which contains the exhibition room, experimental laboratories, library and conference room.

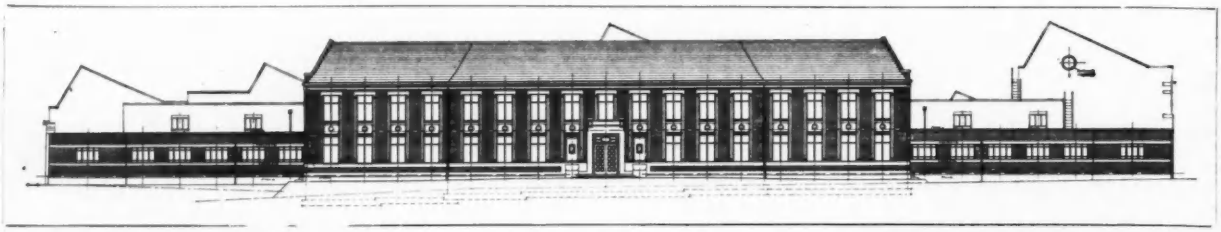


The front entrance doorway of the administrative department. There are painted cast-iron panels between ground and first floor windows.



Chemical and Engineering Laboratories, Northwich. [*By L. H. Bucknell.*

The library. The woodwork is of maple; the floor of compressed cork. Note special lighting arrangement between book cases.



The architect's working drawings of the main front. The centre portion houses the administration department.



Semi-technical laboratory.

In the library, cases run along the faces of the walls and there are study tables under the windows; all forming part of the wall treatment. Isolated cases are also provided, having a special lighting arrangement to avoid floor obstruction, and at the same time allow small lights to be used between the cases. The woodwork is of maple. The floor is of compressed cork and the ceiling is panelled in celotex.

The floors of the analytical and research laboratories are of jarrah, and those of the semi-technical and low-temperature laboratories, the engineering shop and the chemical store, are of granolithic, with certain portions in duromit. The walls are all fairface white brick, in some cases distempered or painted. Ample wall battens are provided throughout.

In the offices, corridors, etc., generally oak block floors are used. The internal walls in the back portion are fairface white brickwork, distempered, and in the front portion plastered and distempered. The lavatories have terrazzo floors and white glazed tiled walls with teak divisions and doors.

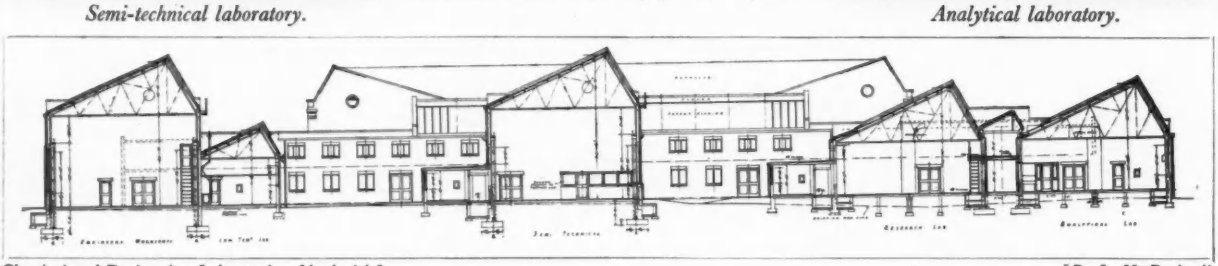
The ground in front of the building is laid out with ample space for waiting cars. The approach to this "place" is flanked by low stone walls and pylons with evergreen hedges at the sides.

The flush doors in the building are of special construction, finished with specially selected veneer and inlays.

The analytical, semi-technical and research laboratories and the engineering workshops each have a floor area of about 5,500 ft. super. The floor area of the low temperature laboratory is about 1,000 ft. super, and that of the chemical stores about 3,500 ft. super.

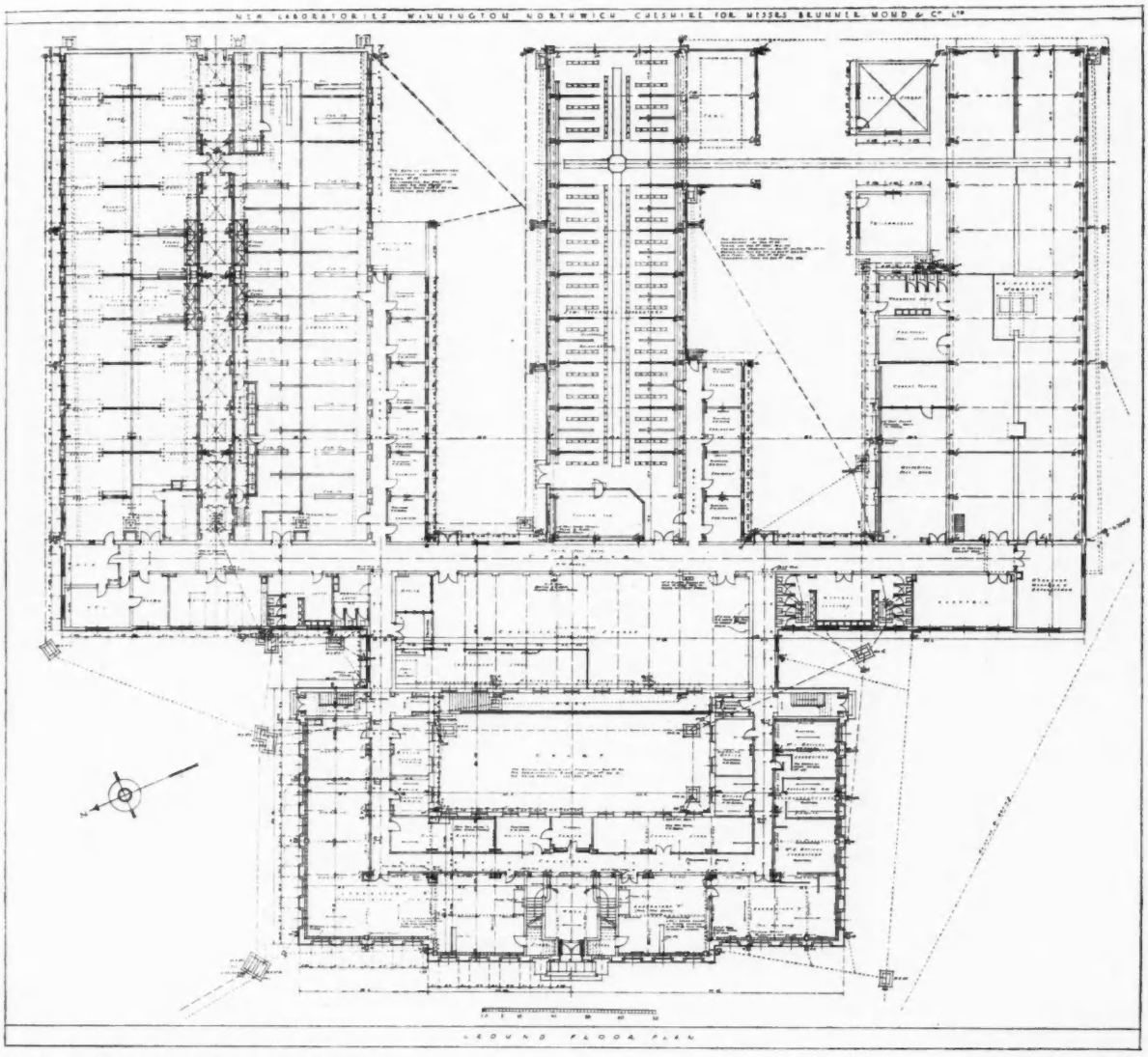


Analytical laboratory.



Chemical and Engineering Laboratories, Northwich. [*By L. H. Bucknell.*

Sectional drawing through engineering workshop, semi-technical, research and analytical laboratories (*see plan on facing page*).



Chemical and Engineering Laboratories, Northwich.] [*By L. H. Bucknell.*

The administration department, front portion, is two stories high. Behind are the laboratories and workshops.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

THE new session of Parliament was opened by the King on Tuesday, October 28. In the Speech from the Throne His Majesty said that his Ministers proposed to introduce legislation to secure for the community its share in the site value of land, and to modify and extend the law relating to town planning and to the preservation of rural amenities.

Housing Act

At question-time Mr. Simon asked the Minister of Health whether he would state the number of houses completed under the Housing Act, 1924, in each year ending September 30, in England and Wales, from the passing of the Act to the present time; and what further houses, if any, were built during each year to be let at rents within the capacity to pay of the working classes.

Mr. Greenwood said that the following statement gave the particulars asked for in the first part of the question :

Year ended September 30	Number of houses completed during the year in England and Wales with State assistance under the Housing (Financial Provisions) Act, 1924
1925	12,385
1926	46,489
1927	97,316
1928	53,792
1929	53,516
1930	51,310

He regretted that he was not in a position to supply the particulars sought in the latter part of the question.

Shops on Housing Estates

Mr. Louis Smith asked the Minister if his attention had been called to the action of any municipalities in building shops on their new housing estates; whether his consent had been asked to this policy; if so, by what towns; and what had been his reply in every case?

Mr. Greenwood said that section 107 (1) of the Housing Act, 1925, empowered local authorities, with the consent of the Minister of Health, to provide and maintain shops on their housing estates. He regretted it was not readily possible to provide the information sought in the latter parts of the question.

Economic Rents

Mr. Ramsbotham inquired whether the Ministry adopted the view that houses built out of public funds should

be let at economic rents, or whether the principle was accepted that the rents charged for subsidy houses should be regulated solely by the ability of applicants to pay them.

Mr. Greenwood replied that the policy of subsidizing houses embodied in the housing legislation promoted by all governments alike since 1919 was based on the view that economic rents for working-class houses had not been and were not attainable.

The Architects' Registration Bill

The Architects' Registration Bill has been reintroduced by Lt.-Col. Moore, the Unionist Member for Ayr Burghs. As the Bill is twenty-fifth on the list of Private Bills, however, it has very little chance of making further progress this Session.

Slum Clearance Schemes

Mr. Grahame White asked the number and scope of slum-clearance and re-housing schemes so far approved under the Housing Act, 1930.

Mr. Greenwood replied that he had received resolutions declaring eleven areas to be clearance areas, one clearance order and one compulsory purchase order. The number of persons occupying the eleven areas was approximately 5,400.

LITERATURE

THE LANES OF LONDON

THE march of civilization evidenced by the erection of huge blocks of offices, banks and other buildings of the skyscraper variety, is tending to blot out entirely the small courts, yards and alleys which have been such a feature of the city for hundreds of years. Many of them date from the twelfth and thirteenth centuries, but especially did they spring up in great numbers during the sixteenth and seventeenth centuries, when much building took place, and they served to divide the large houses one from the other. Up to the end of the eighteenth century people dwelt in the city over their business premises, the lanes running along the backs of the houses and between the gardens.

As time goes on, one by one these landmarks disappear, and the historical associations and memories connected with them are bound to be forgotten and to lose meaning. The author has given us here, before it is too late, a comprehensive and interesting study of the picturesque and old-world byways and lanes of London, and archæologists of the future may well thank Mr. Stapleton for his labours to preserve many historical facts and data that are being carried out of our ken and may, in a few years, be entirely unprocurable. He has traced the lanes down the centuries and gives their names at the various periods; in all, he has discovered over 900 names for these lanes, at some time or now so called.

In the earliest times they were the paths which led up to the inns, palaces and monasteries of the city, and the pathways leading out of the city into the outlying country villages. The houses and palaces of the nobility were approached by their own stairs leading up from the river, and each of these stairs had an approach or "lane." An example of this is Trig Lane, a narrow thoroughfare leading to the river-stairs of the same name, which were called after Sir John Trigg, owner of the stairs in the reign of Edward III. In many cases the names of these lanes show their origin, as Fyefoot Lane, off Queen Victoria Street, which was originally Fivefoot Lane, because it is 5 ft. in width at one end.

Shoe Lane was first mentioned in the City records of 1310, when it was called "Scolane in the ward without Ludgate," whilst a later reference is to the "outlying suburb of Showell Lane." In 1345 Thomas de Donningstone was condemned to be hanged for stealing "one furred surcoat and two double hoods, value four shillings and two linen shirts value forty pence in Sholane near Holbourne."

The charm of this book is much enhanced by a number of drawings in a clear line with graceful shading, which show many beautiful corners where old London lingers still. K. M. H.

London Lanes. By Alan Stapleton. London: The Bodley Head. Price 15s.



From London Lanes.] [*By Alan Stapleton.*

Shoe Lane.

AN APOLOGY FOR ST. PAUL'S

THIS vivid and arresting account of St. Paul's Cathedral has a special interest in this year of its reopening. It is an address the late Canon Scott Holland delivered in Birmingham, before the Ruskin Society, when J. Howard Whitehouse, who has edited the work and written the introduction, was honorary secretary. On this occasion, in 1900, a friendship sprang up between the two, which was only severed by the death of Scott Holland in the last year of the Great War.

Mr. Howard Whitehouse, in his introduction, makes no attempt to cover the same ground as the several studies of Scott Holland which have already appeared, but speaks of him as he knew him. He says:

I love the story which a friend of his tells. He was to preach in St. Paul's, and Scott Holland warned him in the vestry against trying to be intellectual. He might think his audience were all immersed in the problems of Robert Elsmere. Probably they were housemaids. Then he went on: "Did you hear of the unfortunate domestic who gave warning after a year or two in a quite good home, on the ground that she could not stand the words used repeatedly at family prayers: 'O God, who hatest nothing but the housemaid.'"

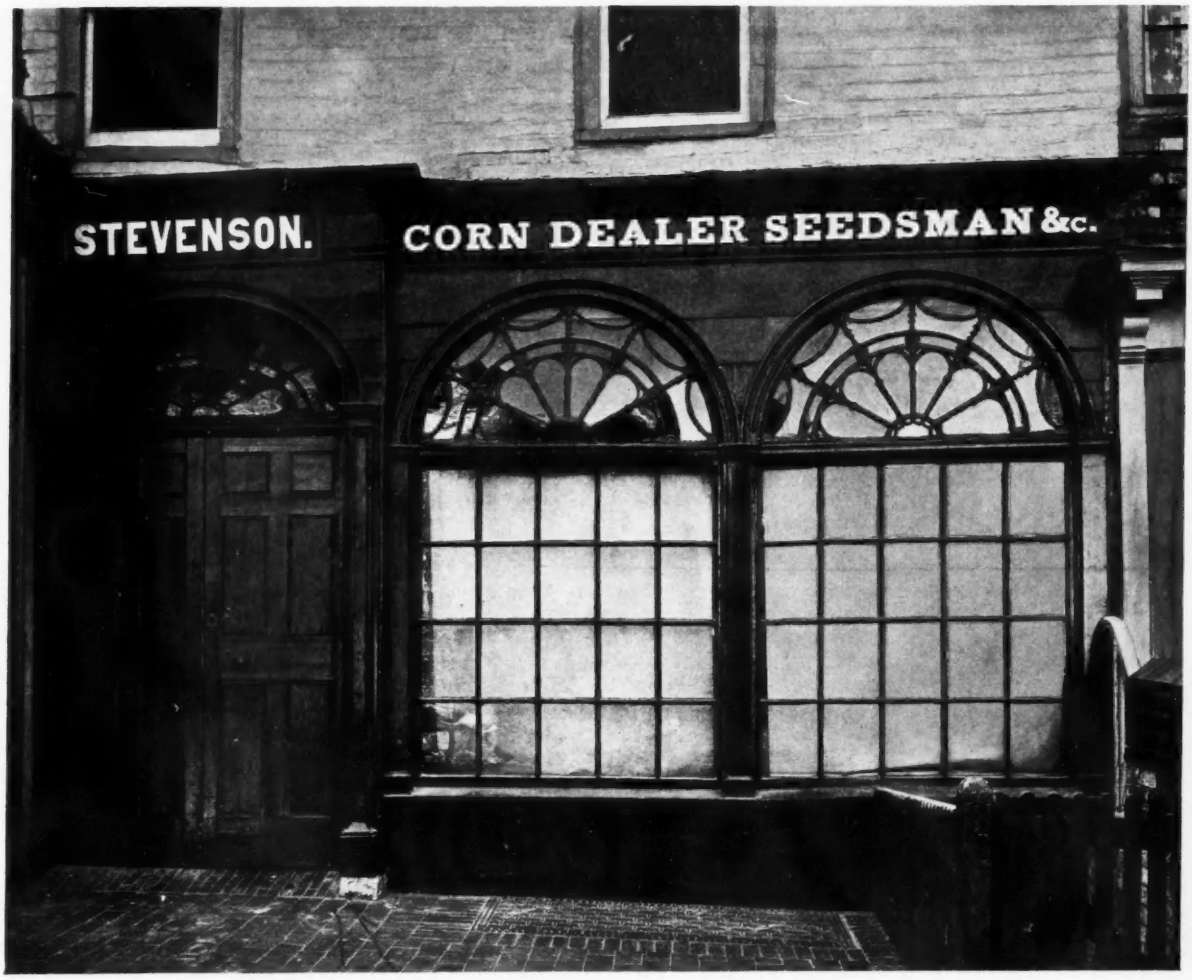
Everyone will agree that this intimate account of St. Paul's—an account of considerable architectural interest—is in some ways the most personal and loving tribute that the great church has ever received.

An Apology for St. Paul's Cathedral. By H. Scott Holland. Edited by J. H. Whitehouse. London: Oxford University Press. Price 2s. 6d. net.



From London Lanes.] [*By Alan Stapleton.*

Cock Lane, Snow Hill.



ENGLISH PRECEDENT No. 140

SHOPFRONT,
NORTH STREET,
LEWES,
SUSSEX

If you can imagine this shop just opened to serve a walking, riding, coaching population, such as our forefathers in the eighteenth century were, it will be seen to be exactly fitting the requirements of the time as to usefulness, degree of refinement and scale.

It might even be said that anything coarser than this was impossible to the way of living and the attitude to building of the craftsmen of that time.

—[E. MAXWELL FRY]

LETTERS FROM READERS

Bungalophobia

SIR,—The important fact which emerges from the entertaining controversy which was started in *The Spectator* on "Bungalophobia," in which Mr. Williams-Ellis and myself were the protagonists, is the admission by Mr. Williams-Ellis that "the British architectural profession as a whole has failed to give guidance where guidance was so obviously needed."

The reason for this seems to me to be that the bungalow is mainly a post-war favourite. It began in the humble form of the army hutment, purchased at a knock-out price from Disposals Boards, sent by train and erected anywhere. The popularity among returned soldiers of this type of home, purchased with a well-earned gratuity, encouraged the original manufacturers of army huts to put on the market improved types of huts. Gradually the transition to full-blooded bungalows was passed, and so imperceptibly the building, design and construction of bungalows never reached the hands of professional architects at all. Today, elaborate and not unpleasing bungalows can be ordered from the manufacturer. They have the appearance of permanent residences of an architectural type, but are, in effect, merely the lineal descendants of the army hut.

Now, my complaint is that these are all that people like myself can get if we decide to have a bungalow built, or look round for one to purchase. There is no alternative at the price which we are likely to pay. The architects here and there build really nice and elegant bungalows, but rarely at a low price, and, in any case, they have made no attempt to put upon the market a really attractive type of bungalow at a price which will compete with the trade article. If, as I suggested, they issued designs classified according to the various districts of England, circulated those designs to local authorities, to local builders and to the Press, there might be some chance of the type of bungalow improving.

Meantime those various societies which are anxious to preserve the countryside should set to work to see that really good designs for bungalows are popularized, approved and taken up by the manufacturers. Instead, I find people like Mr. Harding Thompson (who, according to his letter to *The Spectator*, recently toured Cornwall on behalf of his particular high-brow society) talking such nonsense that it is hardly to be wondered at that the cause of the countryside advances but little. Mr. Thompson tells me that my own bungalow transgresses all those rules of æsthetic elegance which I laid down. Of course it does; that is precisely why I wrote about it. I did not build it (as he presupposes). I bought the thing ready built from someone else. And I bought it because it was comfortable, simple and not outrageous and, above all, because *I could not find any other type of bungalow to buy.* Mr. Harding Thompson not only missed the sole point of the controversy, but proceeded to make a series of brilliant points which I had already made myself!

I conclude, Sir, by offering you a photograph of my monstrosity. I might add that it can be reached by motor car, in case observers imagine that it is inextricably hidden in the forest!

STANLEY CASSON

Official Architecture

SIR,—I note with regret that your issue for October 29 contains a reiteration by Mr. Leathart of an unfortunate and unhappy misconception regarding a large section of the architectural profession—official architects, who represent, I believe, approximately forty per cent. of the membership of the R.I.B.A.

There are times when any man is off his game; so I sincerely hope, for the honour of the profession, that Mr. Leathart, when he wrote the letter in question, was playing below his normal form, and consequently allowed himself to lapse into forgetfulness of the fact that his remarks were directed against fellow-members of the Institute.

This gentleman's three letters on this subject establish beyond doubt the observations which I made at the debate at Olympia, regarding the misconception of present-day official architects, with which a large number of private practitioners still persist in deluding themselves.

The letters further indicate that I was not mistaken when I said that private practitioners have not been marching with the times.

I am therefore constrained to thank Mr. Leathart for the breezy manner in which he has unconsciously come to my aid and supported and strengthened my statements of fact, by the very effective process of personal demonstration.

R. WYNN OWEN

Modern Decoration

SIR,—In your issue of October 29 your reviewer of *Modern French Decorative Art* says that the impediment to the modern movement in this country is the client who "knows what he wants" and will not entrust the decoration of his home to experts. This, of course, means he does *not* know what he wants; if he did, he would find the right experts to supply his needs and entrust everything to them.

Let us cherish the man who really knows what he wants; he is our only hope.

If he be a man of taste, the highest results will be obtained. Even bad taste under these conditions will produce something infinitely more interesting than what is obtained by the feeble followers of fashion who dabble in every new movement without understanding the true significance of what they are doing. Such people produce a mediocre result, which may easily "take in" the less discerning among us and so lower the standard of our creative art.

The client, however, is not always to blame for this state of affairs. The trouble is often due to a lack of mutual support among the experts employed. For instance, too often the artist



Mr. Stanley Casson's bungalow on the Cornish coast. "... it can be reached by motor car, in case observers imagine that it is inextricably hidden in the forest!"

decorator and furniture designer suffer from the rabbit architect.

I have no use for "The Man Who Knows What He Wants." Let us suppress him, or at any rate let us be careful not to introduce him to the architect who knows what is wanted but does not dare to do it.

It is alliances such as these that produce that stagnant state of affairs so noticeable in the decoration of our homes. MARY ADSHEAD

QUESTIONS THAT ARISE

Stains in Polished Woodwork

R. E. writes: "*I have just remodelled an old house, in the course of which I had polished some old oak woodwork. Although the woodwork is on the first floor and is free from dampness, a milky appearance has become noticeable under several parts of the polish. How can this be removed?*"

There is only one remedy I can suggest that will solve your correspondent's query; that is, to remove all the polish down to the woodwork. This should be done with a paint remover, free from alkali and made principally from acetone. This may be used without its being necessary to apply any acid after the polish is removed, the surface being simply wiped down with a piece of waste dipped in turpentine or white spirit. Before repolishing, great care should be taken to see that the surface is quite dry.

K. W.

Sound Insulation

W. H. writes: "*A client has consulted me with regard to sound insulation, and I should be glad to know if you could give me some information as to the prevention of sound travelling through from one to the other of a pair of semi-detached houses. For a few hours every day a piano is played (indifferently) and is an intolerable nuisance to my client, as it can be heard from basement to attic floor. The accompanying sketch gives an idea of the situation, and the suggested treatment. The houses were built about fifty years ago, so it may be assumed that the walls are solid. I have suggested the cutting clear from wall of all joists supported in the party wall, and bearing them on steel joists, as shown by the double dotted lines, in each floor, and then building up against the party wall with some proved insulating material, leaving a small cavity, and plastering over, inside the rooms.*

"*Will this be absolutely efficacious, or could your expert give me any better suggestion or information for dealing with the case?*"

I think your correspondent's surmise is correct, namely, that most of the noise is travelling along the joists through the party wall, and no doubt the somewhat drastic remedy he suggests will have effect. Personally, I should recommend that the new partition be built entirely separate from the wall in wallboard sheeting, but it would be extremely valuable if, in the space between this and the wall, he could fix loosely another layer of insulating sheeting, but the former should be between fillets which would allow of vibration of the sheet, and must pass right down the depth of the floor.

It is impossible to say if this will be absolutely efficacious, as, of course, sound may travel out of the window and be reflected back in the other window off the opposite wall.

Care would, of course, be taken that the wall is made good where the ends of the joists are taken out.

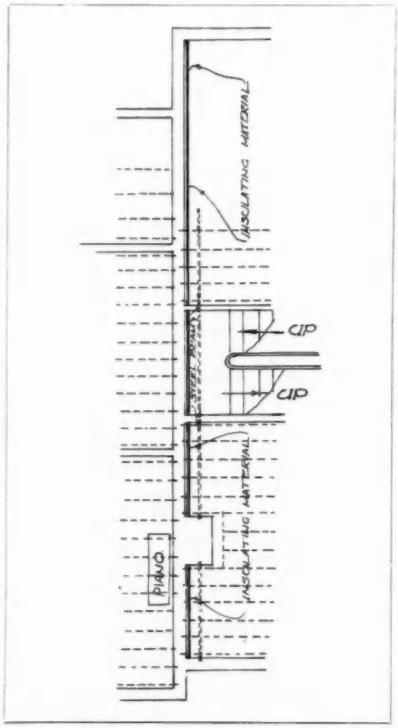
"DELTA"

Sinking a Well

B. G. writes: "*Am I infringing any law, or can any action be subsequently taken against me for sinking a well on my own property, or on property which I have with my landlord's consent, if such a well seriously interferes with the supply in a public well just outside the property? The well in question is not very much used except in times of drought.*

Your correspondent will infringe no law through sinking a well on his own property or on the property of his landlord with the landlord's consent. I assume that his sinking a well will not disturb necessary support for your neighbour's land. No action can be successfully brought for depriving your neighbour of his supply of well-water. I assume that there is no local Act of Parliament dealing with the particular district affected. See the House of Lords case: *Mayor and Council of Bradford* v. *Pickles*, 1895. A.C. 587.

A. B.



A correspondent's suggested treatment for sound insulation (see query by "W. H.")

Manufacture of Plaster

M. R. writes: "*What temperature is required to burn or dry magnesium limestone gypsum to produce alabaster (plaster of Paris), and what is the best method of manufacture? Could you also inform me of some publication which would deal with this matter, including particulars of erection and design of kilns?*"

Alabaster is not the same as plaster of Paris, but is a soft rock which, when polished, resembles marble. It is not made artificially, but is quarried as a natural stone and worked into the desired shapes by the methods ordinarily employed for working stone. Magnesium limestone gypsum is not suitable for plaster of Paris unless it is almost free from magnesium compounds. The material would, therefore, require to be tested chemically before anything further could be done with it.

The method of manufacture consists in heating finely pulverized pure gypsum in an iron vessel (known as a "kettle") to a temperature which must not exceed 400 deg. Fahr., whereby a product is formed consisting of two molecules of calcium sulphate combined with one molecule of water. The product is sifted, and may be re-ground in order to produce superfine plaster. The best present use of true alabaster is to make it into "fittings" for electric lights, vases, etc. There is a material known as alabaster which is not composed of gypsum but of aragonite; this is a true marble, and does not form plaster of Paris when heated.

Various books and encyclopædias give outlines of the process, but your correspondent, before taking any action in the matter, would be well advised to consult an expert. The manufacture of plaster of Paris is an industry requiring great technical skill, and for this reason is not to be lightly started by those having no experience. R. H.

SOCIETIES AND INSTITUTIONS

OFFICIAL ARCHITECTURE

THAT official architecture is one of the most vital questions in the architectural world today was stressed by Mr. W. G. Buck, F.R.I.B.A., in his presidential address to the Sheffield, South Yorkshire and District Society of Architects, held in the University, Sheffield.

The practising architect, he said, can only look upon the tendency to employ official architects to design public buildings required by a Government, a municipality, a county or a district, as a menace to his existence. This menace to independent practice was now being carried farther than the work of elected public bodies. Large limited liability companies were being formed for the purpose of carrying on the trade of builders. These companies were often controlled by financiers who knew nothing about the crafts and science of building, but employed a building manager and an architect. They were ready to inform clients (some of whom were large companies, controlled or partly controlled by the same financiers) that there was no need to employ a practising architect as they were in a position to do everything from making the first sketch plan to completing the building.

In the operations of these bodies, which had the spending of money collected by way of rates and money borrowed on the security of the ratepayers' property, there was, in addition to the question of beauty of proportion and design, the consideration of economy or extravagance. In saying this he (Mr. Buck) did not suggest that it would be wise to delete from a building anything that was necessary or advisable for its efficiency for the function for which it was required, or for its beauty as an asset to the dignity of its surroundings. But there was often considerable margin as between buildings of equal perfection and usefulness in general economy of design and construction, and this, he thought, was more likely to be obtained as the result of competitive designs than by having plans prepared in a municipal or Government office.

The community would sooner or later find that in municipalized architecture and building they were not always getting the best, or the best value for their money, and if there was a consequent reaction the independent architect might again be in a position to show the public the best way to obtain the most satisfactory buildings. Until then the present methods would have an anti-stimulating effect that would tend to destroy the ambition of the profession.

In some cases the enormous amount of work made it impossible for the official architect to give it much personal supervision and the work would be left in the hands of assistants. These assistants might be and frequently were architects of equal ability, but they were responsible only to their chief, and the work they did would never have any recognized connection with their names.

Under the circumstances it was hardly likely that assistants would burn the midnight oil in an effort for honour and glory which would not be theirs, and although the men might be right the system was obviously wrong, and the art of architecture suffered.

A vote of thanks to the president was proposed by Mr. J. Lancashire, L.R.I.B.A. (vice-president), and seconded by Mr. J. M. Jenkinson, A.R.I.B.A.

STRUCTURAL ENGINEERS

Mr. R. H. Harry Stanger, F.R.C.S., A.M.INST.C.E., in his presidential address at the first meeting of the 1930-31 session of the Institution of Structural Engineers, called attention to the British Standard Specifications.

The tests laid down in standard specifications, he explained, were the result of co-operation between the scientist and the manufacturer, but while it had become the practice to specify that the materials used in constructions should comply with the requirements of standard specifications where such existed, it should also be possible to ascertain the qualities of the materials from the structural engineer's point of view.

Concrete, he thought, was the structural engineer's best friend, but like all true friendships it was essential that he should be able to understand it in all its moods.

The structural engineer had been accustomed to work by tradition. He was satisfied if the cubes of concrete sent to the laboratory showed the strength laid down in his specification. If the contract was of sufficient importance he might, before the commencement, have the aggregates which he proposed to use sent to the laboratory for making into cubes and testing for compressive strength. The fact that cubes made on the job always gave lower strengths than cubes made in the laboratory was certainly disquieting, but, as it invariably happened, this difference came to be looked upon as something only to be explained by the fact that the laboratory, for some insidious reason, was always supposed to try to obtain the greatest possible strength. Actually the difference was due to the controlled conditions in the laboratory, and as this became recognized, efforts were made to introduce more exact control in the field by the improvement of the machinery for the better mixing of the materials and for the smoother depositing of the finished product. These, however, were but a minor part of the craft of the concrete maker.

By far the most important was the knowledge of how to make proper use of the materials at hand to meet the particular requirements in view.

The research laboratories of the world had done an immense amount of work to show how more scientific methods of control can help in getting the best out of the improved methods of manufacture, and most engineers had been quick to adopt their suggestions.

ROMANESQUE ARCHITECTURE

The Romanesque Architecture of Northern and Southern Italy and Sicily was the subject of an address by Sir Banister Fletcher, P.R.I.B.A., at the Central School of Arts on Wednesday last. Everywhere, he said, in the styles of the buildings was visible the impress of the seals, not only of successive conquests, but of varieties of religions.

MODERN ARCHITECTURE CONGRESS

The third International Congress of Modern Architecture will be held in Brussels, from November 27 to 29. The subject of the exhibition will be the "Rational Ground Layout for Minimum Size Dwellings," and also "Horizontal Sliding Windows."

Further information is obtainable from Mr. Patrick Cutbush, Secretary, English Group, Architectural Association, 34 Bedford Square, W.C.1.

BRITISH STEELWORK ASSOCIATION

At the annual meeting of the British Steelwork Association, held on Thursday last, Mr. Arthur Dorman (joint managing director of Messrs. Dorman Long & Co., Ltd.) was elected president, and Mr. J. H. Humphreys (chairman of directors of Messrs. Braithwaite & Co., Engineers, Ltd.) vice-president for the coming year.

MEASURED DRAWINGS SCHOLARSHIP

Messrs. J. Howard Cooke, A.R.I.B.A., Manning D. Robertson, A.R.I.B.A., and the Professor of Architecture in University College, Dublin, are to act as assessors in connection with the 1930 Kerner - Greenwood Scholarship for measured drawings.

This scholarship, value 25 guineas, is offered for competition for the best set of measured drawings of a building or part of a building of architectural and historic importance in Dublin. The winner is required to make a further set of drawings of a building of similar importance in a district other than Dublin.



By Robert Mauchlen (Watercolour : 8″ × 12″)

The Castle, Loches.



By Robert Mauchlen (Watercolour : 10¾″ × 17″)

The Saint-Antoine Tower, Loches.



By Robert Mauchlen (Watercolour : 8″ × 12″)

A street in Loches.

IN this session are included drawings by two prize-winners, Messrs. R. Mauchlen and Frederick W. Baldwin, in the last of the Holiday Sketches Competitions. Most of the subjects are sufficiently well known, but from Mr. Mauchlen's notes the following has been condensed :

The town of Loches, lying 25 miles south of Tours, is probably the least known of all the mediæval towns in Touraine. It has been described as one of the oldest and best-preserved towns in Europe ; it takes little imagination to restore it to its mediæval beauty.

The castle, comprising royal abode, collegiate church and fortress, towers above the town on a plateau of chalk, with defensive works rising sheer on all sides. From gloomy donjon and torture chambers to the delightful Early French Renaissance apartments in the chateau, the buildings offer a remarkable display of architecture from the twelfth to the seventeenth centuries.

From the thirteenth-century castle gate, a perfect example of the period, the descent to the town is via the High Street, its Renaissance houses rich with carving and delightful ironwork.

The town hall, at the bottom of the street, a pure specimen of the Renaissance period, lies against the Picoys Gate ; this and the Cordelier's Gate are the only two remaining out of the original five in the town wall. The Sainte-Antoine tower (a belfry built in the sixteenth century as a bell tower for the two parish churches) dominates the town.





From gloomy donjon and torture chambers to the delight-

The Saint-Antoine Tower, Loches.

dominates the town.



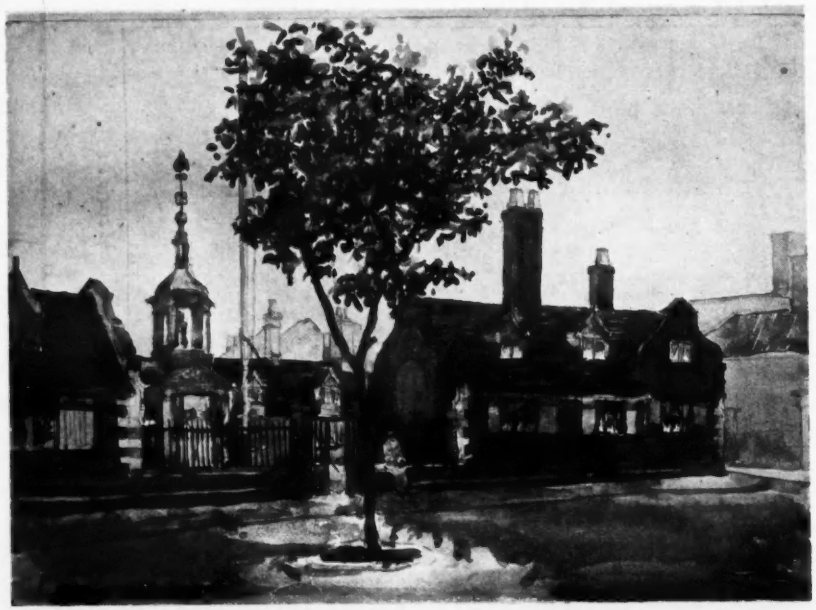
By Frederick W. Baldwin (Pencil : 11¼″ × 6½″)

Glastonbury Abbey, Somersetshire.



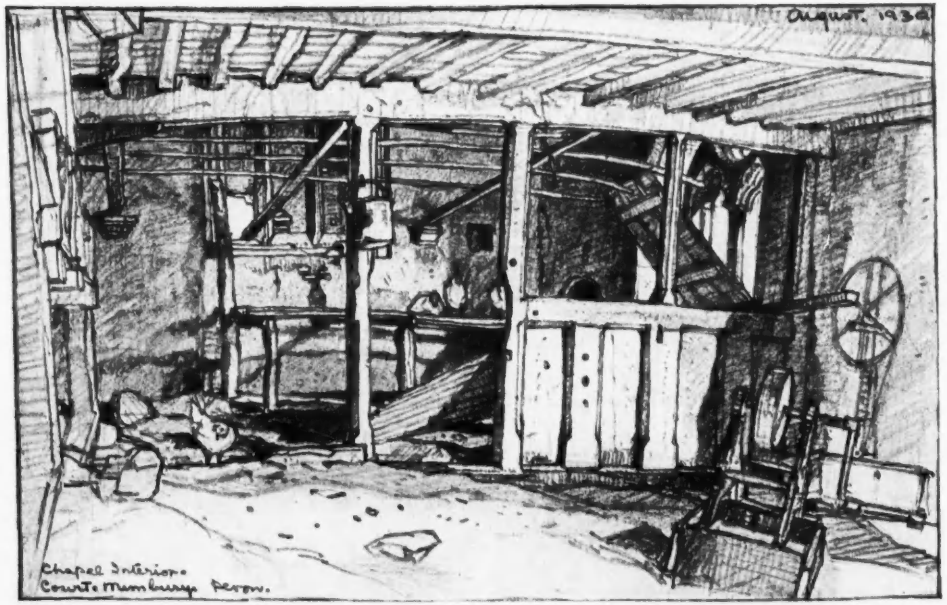
By John V. Hamilton (Crayon and wash : 22″ × 14″)

The Bell Inn, Waltham St. Lawrence, Berks. (1611).



By Arthur L. Hall (Watercolour : 15″ × 11″)

The Hospital for Ancient Fishermen, Great Yarmouth.

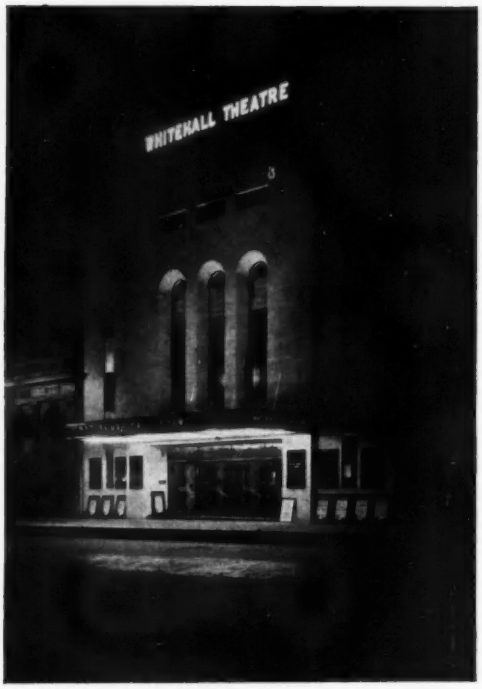


By Frederick W. Baldwin (Pencil : 8¼″ × 5¼″)

Chapel Interior. Court. Membury, Devon.

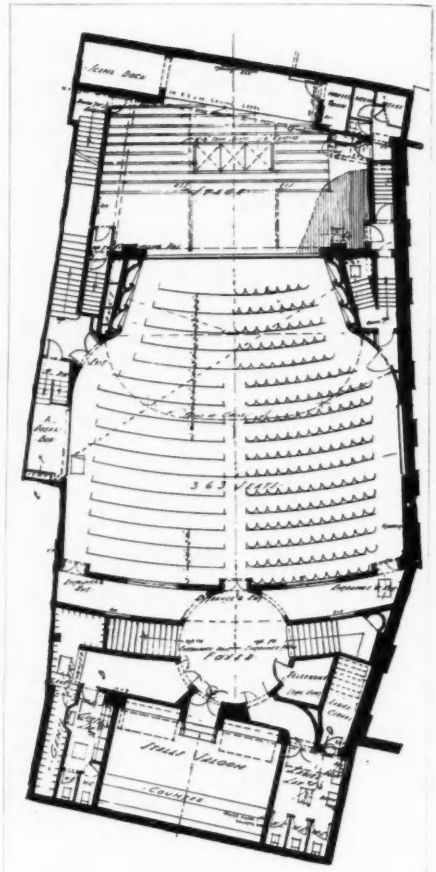
THE WHITEHALL THEATRE, LONDON

E. A. STONE AND PARTNERS, Architects

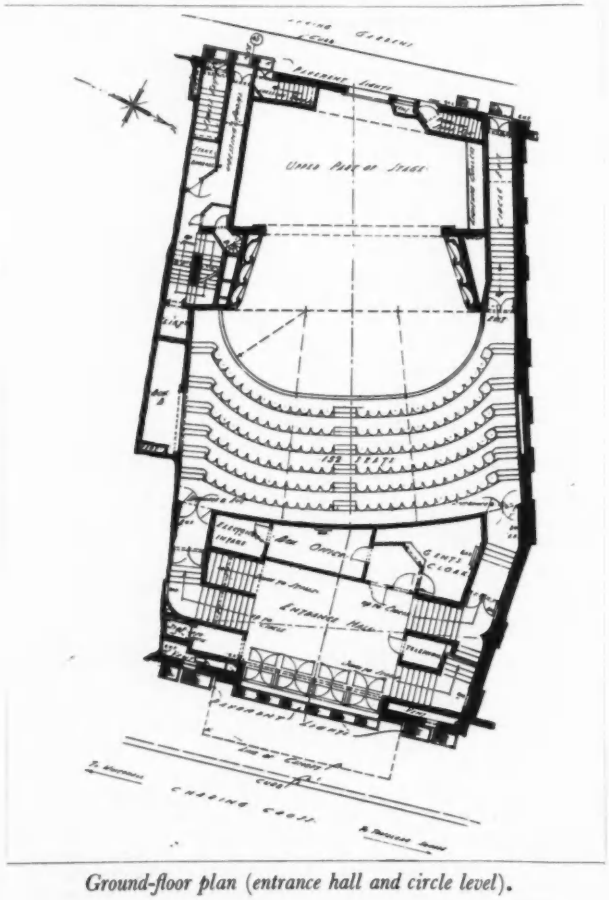


THE Whitehall Theatre, recently completed in Whitehall from the designs of E. A. Stone and Partners, is illustrated in the November issue of *The Architectural Review*. It is the latest of the many theatres erected in London and district by this firm. In the *Review*, which is filled with features of singular interest, is also an illustration of another theatre, that built at Parma in 1618 by Aleotti for the private use of Duke Ranuccio II.

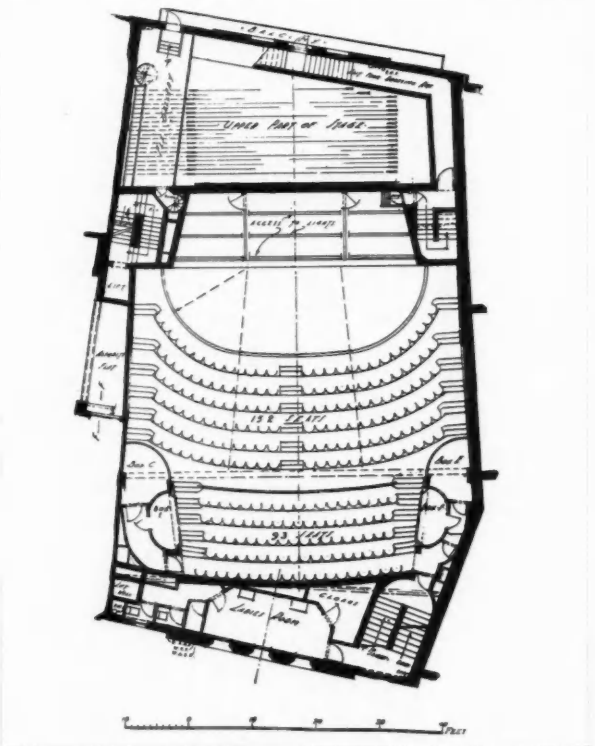
Perhaps the features of outstanding popular interest are the assessor's report and awards in the competition for the decoration and furnishing of the dining-room and the living-room in Lord Benbow's apartments.



Plan of lower ground-floor (stalls level).



Ground-floor plan (entrance hall and circle level).



Plan of upper part of circle.



The Whitehall Theatre, London.] *[By E. A. Stone and Partners.*

Boxes in the circle. The front of the balcony is of fibrous plaster, capped with an ebony handrail. The dome of the ceiling of the theatre and the semicircular-headed arches to the boxes are of the same material, silvered. Walls are of plaster in brilliant colourings of silver, black, red and green.

It will be recalled that the Editor of *The Architectural Review* offered a first prize of £100, a second prize of £50, and a third prize of £25 for the best schemes submitted.

The awards of the assessor are as follows :

First prize — £100 : Raymond McGrath, "Finella," Cambridge. Suggested collaborators, E. McKnight Kauffer (rugs), Paul Nash (fabrics), Edward Bawden (paintings and wallpapers), Raymond McGrath (electric fittings and furniture), Maurice Lambert (sculpture).

Second prize—£50 : Paul Nash, Oxenbridge Cottage, Iden, Sussex, in collaboration with Denham Maclaren (furniture and light fittings), Edward Wadsworth (paintings), Paul Nash (carpets and fabrics).

Third prize—£25 : Vanessa Bell, 8 Fitzroy Street, London, W.1, in collaboration with Vanessa Bell and Duncan Grant (paintings), Humphrey Slate (carpets and fabrics), John Skeaping (sculpture), Robert Medley (furniture and light fittings).

The designs placed first and second are illustrated in the *Review*, and it is announced that the third design will be reproduced in the December issue. Arrangements have been made for the winning design to be carried out and put on exhibition at Waring and Gillow's showrooms in Oxford Street, London. The following firms have undertaken to make the various accessories : Rugs, hand-made, Wiltons Royal Carpet Factory; electric fittings and fires, Harcourts, Ltd.; wallpapers, John Line and Sons, Ltd.; fabrics, Donald Bros., Ltd.; furniture, Waring and Gillow.

Of unusual archæological and architectural interest is the illustrated article by Robert Byron on "The Black Pagoda at Kanarak." Its material is a dull rusty sandstone, except the roof, which is of a silvery colour. Both stones, says the author, have blackened extensively, like Portland stone in London, so that the carving and structural ornament are thrown into double relief. But since these features, unlike those of many Indian buildings, are contrived with a sensitive regard for the general lines of the mass, he points out that the effect is admirable, particularly in the case of the roof. He states that the base is carved with such lavish elaboration, yet with such a classic sense of pure design and form, as to render it the loveliest of the many lovely monuments of India and, beyond any other, the most sympathetic to a European taste formed under the Early Renaissance.

Elizabethan Carpets

English embroidered table carpets of the Elizabethan age are extremely rare, and the beautiful pair till lately in the possession of Lord St. John of Bletso has been acquired for the Victoria and Albert Museum. The purchase was made possible by the National Art-Collections Fund, which provided half the purchase money, and through the co-operation of Messrs. Durlacher.

One of the carpets is traditionally associated with the Lady Margaret Beaufort, Countess of Richmond (1443–1509), but is probably not earlier than 1550. The other was made for the marriage of Oliver St. John, first Earl of Bolingbroke, with Elizabeth, the daughter and heiress of William Paulet.

LAW REPORT

IMPORTANT DECISION AS TO LIABILITY FOR PENALTY

Archibald D. Dawnay and Sons v. *Holloway Bros. King's Bench Division. Before Mr. Justice Branson*

THIS case raised, on a preliminary point, an issue as to the liability of sub-contractors, who fail to carry out work under their sub-contract by the stipulated time, to a penalty, if the corresponding penalty has not been exacted under the head contract.

The action was by Archibald D. Dawnay and Sons, Ltd., of Steelworks Road, Battersea, against Holloway Bros., of The Wharf, Grosvenor Road, Westminster, to recover the sum of £2,000, moneys due under a contract of August, 1928, for work and labour done.

Defendants by their defence admitted that the amount was due, but set up a counter-claim under which they said that the plaintiffs failed to carry out the contract in the stipulated time, and that the sum of £2,000 was due from plaintiffs to defendants by way of liquidated damages. This the plaintiffs disputed, and this was the issue that now came up for decision.

Mr. Pritt, K.C., for the plaintiffs, said the matter came before the Court on a preliminary point of law, and it was a simple point. Defendants were the main builders and contractors to build the Masonic Peace Memorial in Great Queen Street, and in the ordinary course of business they employed sub-contractors for a great deal of the steel-work, and plaintiffs were one of the sub-contractors. Plaintiffs were guilty of some delay. There was a provision in the sub-contract under which the plaintiffs were liable for certain liquidated damages for delay, and there was a corresponding penalty exacted from defendants under the head contract. In the events which happened, defendants under the head contract were not compelled to pay any damages, the architect having paid in full and having extended their time under the contract. The defendants now, however, said to the plaintiffs, "We want damages from you as we have actually suffered." The plaintiffs said in answer, "That the provision for liquidated damages is exhausted, as there is now no question of delay."

The contract between the parties was made in August, 1928, and the sub-contract provided for liquidated damages for delay of £200 a week. The plaintiffs had to supply the constructional steelwork required. The penalty was afterwards agreed at £100 a week. Here the defendants had not to pay any penalty to their building owners, and counsel contended that that put an end to the question of damages as far as plaintiffs were concerned.

Mr. Croom-Johnson, K.C., for the defendants, argued that the concession to the defendants in no way affected the defendants' claim for liquidated damages against plaintiffs, and that the counter-claim was a good one.

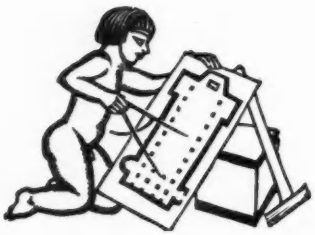
His lordship, after hearing the legal arguments, said this matter came before him on the preliminary point raised as to the construction of the penalty clause under the circumstances of the case. He came to the conclusion that the intention of the penalty clause was to provide for the payment of damages in case of default. But such damages were only to be recovered if the penalty was exacted under the agreement between the defendants and the building owners. This penalty had not been exacted, and in his view the question now raised must be decided in favour of Dawnay and Sons, Ltd.

COMPETITIONS OPEN

November 17.—The Scarborough Education Committee invites architects to submit competitive designs for the Seamer Road New School. Assessor: Morris Thompson, F.R.I.B.A. Premiums: £100, £60, and £40, for designs placed first, second and third, respectively. Applications for conditions of the competition should be made to R. Underwood, Director of Education, Education Offices, Huntriss Road, Scarborough, not later than November 17. Deposit £1 1s. Latest date for submission of designs: January 17.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office,

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NAME

ADDRESS

THE ARCHITECTS' JOURNAL

Lloyds Bank Chambers, Guildford, not later than November 30.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolsky Square (Young Communist Square), and will contain a mass musical stage, and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb. 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, NOVEMBER 5

R.I.B.A., 9 Conduit Street, W.1. Meetings of the Art Standing Committee and the Board of Architectural Education Examinations Committee.

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of Members' Holiday Sketches. Until November 27.

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Inaugural meeting and presentation of medals awarded during the session 1929–1930. **8.30 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in North Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. Sessional Meeting. "The Operation of the Heat Pump, and its Possible Applications to Heating Problems, particularly Swimming Bath Heating." By T. G. N. Haldane, M.A., A.M.I.E.E. **7 p.m.**

INSTITUTION OF SANITARY ENGINEERS. Annual Dinner, to be held at the Holborn Restaurant, W.C. **7 p.m.**

THURSDAY, NOVEMBER 6

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. At the Municipal School of Art, Brighton. "Modern Buildings." By Francis R. Yerbury. (Lantern Illustrations.)

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 29 Lincoln's Inn Fields, W.C.2. "Defects in the Rating Acts, 1925, 1928 and 1929." By Michael Faraday. **7.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lecture. Fourth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Second of a course of five public lectures on "Re-plannings of London, *c.* 1520-1920." By Miss E. Jeffries Davis. 5.30 p.m **5 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Building: Its Sculpture and Painting." By Professor E. S. Prior (Lantern Illustrations.) **5.30 p.m.**

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "St. Paul's Cathedral Restored." By Walter G. Bell, F.S.A., F.R.A.S. Chairman: A. McD. Gordon, **7.30 p.m.**

SATURDAY, NOVEMBER 8

Sunrise, 7.4 a.m. Sunset, 4.23 p.m.

MONDAY, NOVEMBER 10

SOCIETY OF MOTION PICTURE ENGINEERS. At the Royal Photographic Society, 35 Russell Square, W.C.1. "Sound Film Studio." By C. W. Glover, A.M.INST.C.E., M.I.STRUCT.E. **7.45 p.m.**

SURVEYORS' INSTITUTION, 12 Great George Street, Westminster, S.W.1. Ordinary Meeting. E. H. Leeder will deliver his presidential address. **8 p.m.**

TUESDAY, NOVEMBER 11

MORLEY COLLEGE, Westminster Bridge Road, S.E.1. "Life and the Countryside." By J. W. Robertson Scott. **8 p.m.**

WEDNESDAY, NOVEMBER 12

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "The Royal Society of Arts Competition of Industrial Designs." By Professor A. E. Richardson, F.S.A., F.R.I.B.A. Chairman: The Rt. Hon. Lord Stanmore, C.V.O. **8 p.m.**

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "The Influence of Modern Materials on Modern Architectural Treatment." By Joseph Emberton, A.R.I.B.A.

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. Smoking Concert, to be held at Booth's Restaurant, East Street, Brighton. Chairman: John L. Denman, F.R.I.B.A.

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in Central and South Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the College of Technology, Manchester. Paper by Oscar Faber, O.B.E., D.SC. **7 p.m.**

THURSDAY, NOVEMBER 13

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Science Standing Committee.

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "The Furniture and Decoration of Robert and James Adam." By Arthur T. Bolton, F.S.A., F.R.I.B.A. **7.30 p.m.**

INSTITUTION OF WELDING ENGINEERS. At the Institution of Mechanical Engineers, Storey's Gate, St. James' Park, S.W.1. "Metal Surface Hardening." By A. E. Shorter, M.B.E., A.M.I.MECH.E. (Lantern Illustrations.) **7.45 p.m.**

THURSDAY, NOVEMBER 13 *(continued)*

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "A Comparison of English and Foreign Building Laws." By C. H. Cottew, M.INST.S.E. **6.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Fifth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Third of five public lectures on "Re-planning of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Modern Pigments: Their Proper Selection and Use." By A. P. Laurie, D.SC. **4 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre, "English Mediæval Painting." By W. G. Constable, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 14

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Stresses in Angle Sections." By F. C. Bridge. **6.30 p.m.**

CHADWICK LECTURES. At the R.I.B.A., 9 Conduit Street, W.1. "The Object and Methods of Sewage Treatment, particularly in Relation to Inland Towns and Isolated Institutions." By J. H. Coste. Chairman: Sir George Humphreys, K.B.E., M.INST.C.E. **8.15 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Painting Media: Oils, Varnishes and Tempera." By A. P. Laurie, D.SC. **4 p.m.**

SATURDAY, NOVEMBER 15

Sunrise, 7.16 a.m. Sunset, 4.12 p.m.

HORNIMAN MUSEUM, Forest Hill, S.E.23. "The Lake Villages of Somerset." By H. St. George Gray, F.S.A. **3.30 p.m.**

MONDAY, NOVEMBER 17

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Executive Committee. 4 p.m. General Meeting. "Public Control of Buildings: The Position in 1930." By A. N. C. Shelley. 8 p.m. Also, Licentiates' Examination to qualify for Fellowship. **4 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Methods of Wall Paintings." By A. P. Laurie, D.SC. **4 p.m.**

TUESDAY, NOVEMBER 18

ROYAL ACADEMY, Burlington House, W.1. "The Theory of Colour and its Application to Painting." By A. P. Laurie, D.SC. **4 p.m.**

WEDNESDAY, NOVEMBER 19

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "Persian Painting." By Laurence Binyon, LL.D. Chairman: Sir Arnold Wilson, K.C.I.E., etc. **8 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: Bridges, Castles, Palaces." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Early Methods of Oil Painting." By A. P. Laurie, D.SC. **4 p.m.**

THURSDAY, NOVEMBER 20

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "The Progress of Furniture Craftsmanship from 1650 to 1700." By John C. Rogers, A.R.I.B.A. **7.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. At the Metropole Hotel, Leeds. "Concrete and Critics." By A. W. Legat, M.INST.C.E. **7 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Sixth of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Fourth of a series of five public lectures on "Re-plannings of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Alabaster Carvings." By W. L. Hildburgh, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 21

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Finance and House Committee. Intermediate Examination. Until November 27.

NATIONAL HOUSING AND TOWN PLANNING CONFERENCE. At Blackpool. Until November 24, inclusive.

INSTITUTION OF STRUCTURAL ENGINEERS. Western Counties Branch. At the Merchant Venturers Technical College, Unity Street, Bristol. "The Erection of Steelwork." By G. F. C. Caswell. **7.30 p.m.**

SATURDAY, NOVEMBER 22

Sunrise, 7.28 a.m. Sunset, 4.3 p.m.

MONDAY, NOVEMBER 24

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "The A.A. Excursion to Sweden and Denmark, 1930." By H. Austen Hall, F.R.I.B.A. **8 p.m.**

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Cantor Lecture I. "Modern Domestic Scientific Appliances: Lighting of Rooms." By Professor Charles R. Dowling, F.I.C., F.INST.P. **8 p.m.**

OBITUARY

We regret to record the death, which occurred on October 29, of Mr. George Mitchell, one of the managing directors of the Limmer and Trinidad Lake Asphalt Co., Ltd.

He had been associated with this company for over twenty years, during which time he had seen it develop to its present strong position in the road and building business.

Mr. Mitchell was Past-Master of the Paviors' Company. He was connected with many charitable organizations and was president of the Brotherhood of Cheerful Sparrows.

Mr. John Thomas Johnstone, F.S.I. L.R.I.B.A., of Merstham, left £11,682 (net personalty £10,096).

TRADE NOTES

At a meeting of the Council of the Rubber Growers' Association (Incorporated) a memorandum from the board of Rubber Roadways, Ltd., was submitted, outlining suggestions for expediting the commercial development of rubber roadways. The memorandum stated that having regard to the advantages of rubber roadways, the placing on the market of such a material at a competitive price would undoubtedly create a permanent new industry which would absorb a large quantity of crude rubber annually. The board felt confident that the commercial development of rubber roadways would be greatly stimulated by further technical research, subsidies of crude rubber, and financial assistance. It was pointed out that the question of financial assistance for the provision of plant and machinery with the object of expediting the manufacture of blocks should receive favourable consideration. This would encourage manufacturers to deal with rubber blocks as a definite branch of their business, and, with subsidies of rubber, the growers would necessarily have a voice in marketing policy. Encouragement, it was said, should also be given to pooling of operations so that any type of block required by a road authority could be speedily turned out in quantity. It might also be necessary to subsidize special areas, e.g. rubber roads adjacent to hospitals. The Council, in adopting the memorandum, supported the view that the time had arrived for some bold and concerted effort to be made to encourage the commercial development of rubber roadways, and decided in the first instance to make an immediate appeal to producers to agree to supply to Rubber Roadways, Ltd., standard quality rubber for a period of five years on a certain basis. It is proposed that the rubber should be devoted to the manufacture of, or experiments connected with, rubber roadways and to cognate purposes, and would not be realized for the purpose of providing funds. It is also intended that assents to the scheme shall not be binding unless producers representing a production during 1929 aggregating not less than 150,000 tons have agreed to contribute rubber on the basis outlined. The measure of response to this appeal will have considerable bearing upon the question of technical research and other matters dealt with in the memorandum, in regard to which the Council have decided upon a course of action.

*

On Friday last the Nettleson Players, comprising members of the various branches of the staff of Messrs. Nettlefold and Sons, Ltd., presented *It Pays to Advertise*, a farcical comedy in three acts, at the King's Hall, Caroline Street, W.C.1. The whole cast of twelve players performed exceptionally well, particularly Mr. Hugh Nettlefold, who played the leading part of Rodney Martin—a young man who possessed so keen a business acumen that he expended great sums of money on advertising tablets of soap, needless to say with excellent results! His lucky slogan was "13 Soap, Unlucky for Dirt." The play was a performance preliminary to two that are to be given at the Scala Theatre on January 5 and 6, 1931, in aid of the R.M.T.B. & B. Society, etc.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors, specialists and sub-contractors for the buildings illustrated in this issue :

New Laboratories, Imperial Chemical Industries, Ltd., Northwich, Cheshire (pages 690–695). General contractors, Gerrard and Sons. Acoustic consultant, Hope Bagenal. Quantity Surveyor, D. Cameron, F.S.I. Sub-contractors : Faldo & Co., Ltd., asphalt ; James Akeroyd and Sons, Ltd., stone (Dungeon) ; Kleine Patent Fire-Resisting Flooring Syndicate, Ltd., patent floors ; Macfarlane & Co., c.i. vent grills; British Air Conditioners, Ltd., Saunders and Taylor, H. and J. Lonsdale, Ltd., and Mathews and Yates, heating and ventilating equipment; O'Brien Thomas & Co., Ltd., sliding-door gear; Ramsay & Co., ironmongery; Robert Adams, ironmongery (floor springs); Sutton and Sons, road top dressing; Vronlog Green Slate Quarries, and Moore and Brock, slates; Dent and Hellyer, Ltd., sanitation; Doulton & Co., Ltd., mercury traps; Mather and Platt, sprinklers; Hollis Bros., wood block floors; Marble Mosaic Co., terrazzo and mosaic ; Fram Reinforced Concrete Co., cork floor; Aeronautical and Panel Plywood Co., Ltd., flush veneered doors; Jackson and Sons, Ltd., fibrous enrichment; J. Gibbs, Ltd., ceiling lights in library; Mander Bros., and Mond Staffordshire Refining Co. (Naylor Bros.), paint; Jefferys and Sons, blinds and curtains; May Construction Co., Ltd., acoustic work; Gray and Son, Ltd., lightning conductors; Gregory Quarries, stone pots by front entrance; Hope and Sons, w.i. and c.i. grilles and patent glazing; Smith and Ansell, lanterns by front entrance, and special library lighting fittings; Pirie & Co., grip handles to front doors; Bath Artcraft, conference room table and chairs and library table and chairs; Chubb and Sons, steel screens; J. Gibbs, Ltd., metal windows; Luxfer, Ltd., glass louvre windows and floor lights; Wood & Co., structural steel; Indented Bar and Concrete Engineering Co., and Expanded Metal Co., reinforcement; Brunner Mond & Co., bricks and electrical work; H. Burn, Dixon & Co., planting; Merchant Trading Co., Ltd., Celotex.

House, garage and chauffeur's flat, "Five Oaks," Ben Rhydding, Yorkshire (pages 684–689). General contractors, William Irwin & Co., Ltd. Sub-contractors : Tunstall & Co., Ltd., waterproofing materials, dampcourses, asphalt and special roofings; Expanded Metal Co., Ltd., reinforced concrete; Leonard Cooper & Co., Ltd., and George Depledge & Co., Ltd., structural steel; Terra Wood Brick, partitions; Mellowes & Co., Ltd., patent glazing and casements; J. Lindley, cast lead, gasfitting and plumbing; Young, Austen and Young, central heating; Triplex Foundry, Ltd., stoves; Burrett and Walford, grates and door furniture; H. G. Bailey & Co., electric wiring; R. Troughton and Young, electric light fixtures; Doulton & Co., Ltd., sanitary fittings; Art Pavements and Decorations, Ltd., stairtreads and tiling; Joseph Raye and Sons, Ltd., door furniture; P. C. Henderson, Ltd., folding gates; Dixon and Powner and Sons, iron staircases; Cowling and Hobson, plaster; Leeds Marble Works, Ltd., marble; Frederick and Harland Schofield, Ltd., textiles and furniture; Merchant Trading Corp., wallpapers (Salubra); Bath Cabinet Makers Co., Ltd., furniture.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated, readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

30677. Axton, L. A. L., and Dunn, G., and Legat, A. W. Reinforced concrete structures for strong-rooms, etc. October 14.

31186. Junkers, H. Unity of structural members. October 17.

31209. Naamlooze Vennootschap Glasfabriek Leerdam voorheen Jeekel, Mijnessen & Co. Making walls of glass building blocks, tiles, etc. October 17.

SPECIFICATION PUBLISHED

315414. Stern, O. Method of making concrete or like piles or foundations *in situ*.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

Plans passed by the CARSHALTON U.D.C.: Additions to the Sun Hotel; twenty houses, Oakhurst estate; eighteen houses, Banstead Road South; two houses, South Way; 138 houses, Anglesey estate.

Plans passed by the CROYDON T.C.: Eight houses, Selsdon Park Road, Addington, for Mr. T. H. Jones; institute, Selhurst Road, for Mr. E. Maufe; seven houses, Beauchamp and Livingstone Roads, for Mr. E. W. Pritchett; amended plan for six houses, Stafford Road, for Messrs. Smith & Co.; sixty-eight houses, Mitcham Road, for Mr. H. Macintosh; house and garage, Fitzjames Avenue, for Mr. A. W. Dawson; factory, Bensham Lane, for Mr. W. Cooper; lock-up shops, Whitehouse Lane, for Mr. L. R. Whittle; two bungalows, Orchard Rise, for Messrs. L. B. Hart & Co.; alterations to club premises, Scarbrook Road, for Mr. C. H. Ridge; workshop and factory, 15 Whitehorse Road, for Messrs. Bridges and Clarke; two houses and garages, Wickham Avenue, for Mr. S. A. Skipper; ten lock-up garages, Lodge and Greenwood Roads, for Mr. H. Elliott; house and garage, 47 Woodmansterne Road, for Messrs. C. Midmer and Son.

The DEPTFORD B.C. has made application to the L.C.C. for a loan of £8,662, for the erection of the Old Town Library.

Plans passed by the EAST BARNET U.D.C.: House, Brookhill Road, for Mr. J. Taylor; twelve houses, Belmont Avenue, for Mr. C. Winkley; house, Crescent Road, for Mr. W. J. Bryant; sixteen houses, Alverstone Road, and sixteen houses, Lovelace Road, for Messrs. W. C. Leak and Sons; also plans for the development of Wyatt's Farm estate, Pricklers Hill.

Plans passed by the WEALDSTONE U.D.C.: Nine houses, Headstone Drive; three houses, Tudor Road; thirty-eight houses and fourteen garages, Malvern Gardens; eighteen houses, Westfield Drive.

SOUTHERN COUNTIES

The BATTLE U.D.C. has received sanction from the Ministry of Health for loans of £10,924 and £326 for the erection of twenty-eight houses on the Lower Lake site, and for road works respectively.

The reorganization of GILLINGHAM schools at a cost of £100,000 is to be spread over a period of two or three years.

A fund to provide twelve more churches in the ROCHESTER diocese has reached £20,085.

Plans passed by the SLOUGH U.D.C.: Sixteen houses off St. Paul's Avenue, for Mr. H. D. Mines; four houses, Ragstone Road, for Mr. W. Varney; four houses, Ragstone Road, for Mr. G. W. Newitt; three houses, Windsor Road, for Messrs. C. Morgan and Son; two houses and shops, Bath Road, Cippenham, for Mr. F. E. Cullimore; two houses, off Willoughby Road, Langley, for Messrs. T. S. Ellis and Son; two houses, Westlands estate, Taplow, for Mr. F. W. West; house, Bath Road, Taplow, for Forest Products, Ltd.; house, shop, garage and store, Baylis Court estate, for Mr. J. Bowyer; bungalow and garage, Huntercombe Lane, Taplow, for Mr. W. Warren; house, Albert Street, for Messrs. Smart and Fretwell; bungalow, Langley Road, for Mrs. E. M. Humphreys; bungalow, Meadfield Road, Langley, for Mr. A. H. Simpson; house and garage, off Leeds Road West, for Mr. T. W. Hanson; lock-up shop and workshop, Windsor Road, for Messrs. Renacre & Co.; three lock-up garages, Leeds and Carlisle Roads, for Mr. W. Warren; ten garages, Leeds Road West, for Mr. H. Bishop; sub-station, Chadell Hill, Chalvey, for the Slough and District Electric Supply Co.

The SURREY C.C. has decided to seek the approval of the Ministry of Health in relation to a scheme for the reconstruction or improvement of twenty-nine bridges in the county, all, with two exceptions, being main road bridges.

EASTERN COUNTIES

Plans passed by the CHESTERTON R.D.C.: House, Girton Road, Girton, for Mr. G. L. Smith; house and shop, High Street, Great Shelford, for Mr. P. Melbourn; garage, Shelford Road, Trumpington, for Mr. L. A. Shanks, Cambridge; house, Leys Avenue, Cambridge, for Mr. W. J. Staines; bungalow, Westfield Road, Great Shelford, for Mr. F. R. Fordham; house, Newington, Willingham, for Mr. F. R. Roberts; house, Waterbeach Road, Landbeach, for Mr. C. Hall.

Specification and bills of quantities are being prepared for the proposed new Council offices and public convenience for LETCHWORTH. The architects are Messrs. Bennett and Bidwell.

The LETCHWORTH Council has received sanction from the Ministry of Health for the erection of forty non-parlour and ten parlour-type houses on the Welbury Housing Scheme, Part II.

The cost of the new elementary school, to be erected in Maidenhall Road, LUTON, is £27,442.

Preliminary designs have been prepared for the new Merchant Taylors' School to be built at Sandy Lodge, near RICKMANSWORTH. The site has an area of 250 acres of land.

SOUTH-WESTERN COUNTIES

Plans passed at POOLE: Eight houses and two garages, Pine Avenue, for Mr. S. G. Ward; house, garage and office, Gorse Hill Road, for Mr. J. N. McDermott; house, Twemlow Avenue, for Mr. D. A. Wood; two houses, Brownsea View Avenue, for Messrs. Maggs and Maggs; two semi-detached houses, Binnie Road, and house, Bourne Vale Road, for Messrs. Philpotts and Manners; amended block plans of four houses, Mossley Avenue, for Messrs. Opperman and Jones; two semi-detached houses, Woodlands Avenue, two houses, Hinchcliffe Road, and two houses, Sandbanks Road, for Messrs. Bartlett and Whiffen; house, Frankland Crescent, for Mr. B. C. Short; three houses, Enfield Road, for Messrs. L. J. Newell and Son; house and shop, corner of Wroxham and Sherringham Roads, for Messrs. Crabb and Crabb; house, Canford Cliff Avenue, for Mr. E. B. Chinchen; eight houses, Gorse Hill Road, for Mr. C. E. Maloney; eighteen houses, off Fernside Road, for Messrs. Brailsford and Wood, Ltd.; house, Sandecotes Road, house and garage, Brownsea View Avenue, house, Canford Cliff Avenue, house, The Crescent, Hamworthy, two houses, Lulworth Avenue, and four houses, Church Road, for Mr. K. Wilson; house, Livingstone Road, house, Sherringham Road, and two houses, Alchester Road, for Mr. E. de Wilde Holding.

MIDLAND COUNTIES

The BEACONSFIELD U.D.C. is applying for a loan of £52,000 for housing purposes.

The BIRMINGHAM Corporation has approved the scheme for the erection of a central fire-station, at a cost of £164,875.

The DERBY T.C. has decided to erect 1,000 dwellings during the next twelve months.

The NUNEATON T.C. is to erect and furnish municipal offices at a cost of £79,000, and a public library at an outlay of £13,670.

The ROTHWELL U.D.C. is to erect sixteen houses on a site recently acquired by the Council.

NORTHERN COUNTIES

A new bridge over the River Aire is to be erected on the Harrogate–Bradford main road at APPERLEY BRIDGE, Yorkshire.

Plans have been approved for the erection of a cinema on a site in Market Street, BAKEWELL, for the Holmewood Picture Palace Co., Ltd. Messrs. Wilcockson and Cutts are the architects.

A new building scheme involving the erection of 600 houses is contemplated by the BEDLINGTON U.D.C. The Council has also decided, subject to the approval of the Ministry of Health, to build houses suitable for aged and retired miners in various parts of the district.

A new Primitive Methodist church is to be erected on the site of the present old church in Chapel Street, BLACKPOOL, at an estimated cost of £16,000. Designs have been prepared by Mr. Halstead Best.

At a meeting of the GATESHEAD T.C. amended plans for the provision of new public baths in the borough, embodying modifications suggested by the Ministry of Health, were approved. The cost of the modified scheme is estimated at £75,000.

A scheme for the erection of a ladies' swimming bath and a children's swimming bath at the rear of the open-air baths in Albert Avenue, HULL, has been approved by the Corporation Baths Committee.

The copper refinery of the Bwana M'Kubwa Copper Mining Co. is to be erected on MERSEYSIDE, at a cost of £2,000,000. Negotiations are now proceeding to determine whether the refinery will be built at Liverpool, Bromborough Pool or Widnes.

Mr. J. H. Stansfield proposes to erect a picture-house on a site opposite the gas showroom in St. Petersgate, STOCKPORT, with accommodation for 1,700 persons, at a cost of £27,000. The architect is Mr. John Knight.

The Minister of Health has sanctioned the borrowing by the SUNDERLAND Corporation of £38,214 for the erection of forty-six houses on the Barley Mow South estate, and fifty-two houses on sites in Leechmere Road, Margaret Street and Ocean Road: also £3,300 for works in connection with the schemes.

SCOTLAND

The DUMFRIES Dean of Guild Court has approved of the plans for the erection of a new cinema to be built near the junction of Shakespeare and English Streets by the Scottish Cinema and Variety Theatres, Ltd. There will be seating accommodation for 1,693 persons in the building, the estimated cost of which is £17,000.

The GLASGOW Dean of Guild Court has sanctioned plans for the erection of more than 1,000 houses by the Corporation Housing Department. The houses are to be built on three different sites in the city, namely, Torbreck Street, Bellahouston; Netherton; and West Drumoyne. All three projects are to consist of three-story tenements. On the Torbeck Street site will be 168 houses of three apartments and thirty of four apartments; at Netherton, 184 houses of three apartments and thirty-eight of four apartments; and at Drumoyne, 582 houses of three apartments and 138 of four apartments.

The Committee of Management of St. Margaret's Church (Church of Scotland), KNIGHTSWOOD, is to erect a church at the corner of Knightswood and Great Western Roads.

WALES

The GLAMORGAN County Education Committee has approved a three-year building programme for 1930–33, at an estimated cost of £900,320.

The Ministry of Health has approved a scheme for the erection of an abattoir at RHYL, at a cost of £7,000. Plans have been prepared by Mr. A. A. Goodhall.

The LLANDUDNO Council has passed plans for the colonnaded shelter which is to be constructed on the Happy Valley Road, at a cost of over £6,000.

IRELAND

The central school which the County Down Education Committee proposes to erect in HOLYWOOD will occupy a site on the Dixon estate. It will comprise both an elementary and a technical school, and will provide accommodation for 600 pupils. Plans are being prepared by Mr. Castor J. Love, architect, of Belfast. Tenders will be invited in about six months' time.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	•1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Aitrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_1	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	•1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_2	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	•1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	•1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	•1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	•1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	•1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	•1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

• In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

	£	s.	d.
Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. 6 *in., per ft.*	0	1	3
DO. 9 *in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. 6 *in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9¼ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. 9 *in., per roll*	0	4	9
DO. 14 *in., per roll*	0	7	6
DO. 18 *in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0
Add to the foregoing prices, if in York stone, 35 per cent.			
DO. Mansfield, 12½ per cent.			
Deduct for Bath, 33⅓ per cent.			
DO. for Chilmark, 5 per cent.			
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies				£14	0	0		
Countess				23	0	0		
Duchess				32	10	0		
Old Delabole	*Med.*	*Grey*		*Med.*	*Green*			
24 in. × 12 in.	£42	11	3	£45	1	0		
20 in. × 10 in.	31	4	3	33	0	6		
16 in. × 10 in.	20	18	0	22	4	9		
14 in. × 8 in.	12	1	0	12	16	3		
Green Randoms, per ton				8	3	9		
Grey-green do., per ton				7	3	9		
Green peggies, 12 in. to 8 in. long, per ton				5	13	9		

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med.	*Grey*		*Med.*	*Green*	
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	1	8
DO. ⅝ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1½ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ⅜ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall..	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.

The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ½ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ¼ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



GARDEN ENTRANCE AND SLEEPING PORCH, WILLINGDON, SUSSEX
Designed by JOHN D. CLARKE

THE photograph shows the garden front and sleeping balcony of Four Acres, a house about two miles from Eastbourne.

In the centre of the bay projection which carries the sleeping balcony is the garden door forming the subject of the working drawing reproduced overleaf. Besides an elevation of door and of balcony balustrade, this gives a detail, half full size, of the architrave, cornice and return end of the scroll pediment.

The solid panels of the balcony front are an interesting change from the more usual balusters and handrail, but whilst keeping out draughts from the floor of the balcony they do perhaps to some extent obstruct the view. They are kept rigid by means of a wrought-iron bar which is encased under the oak capping and extended to allow of their being built into the brick piers at the corners of the balcony or the columns in the centre.

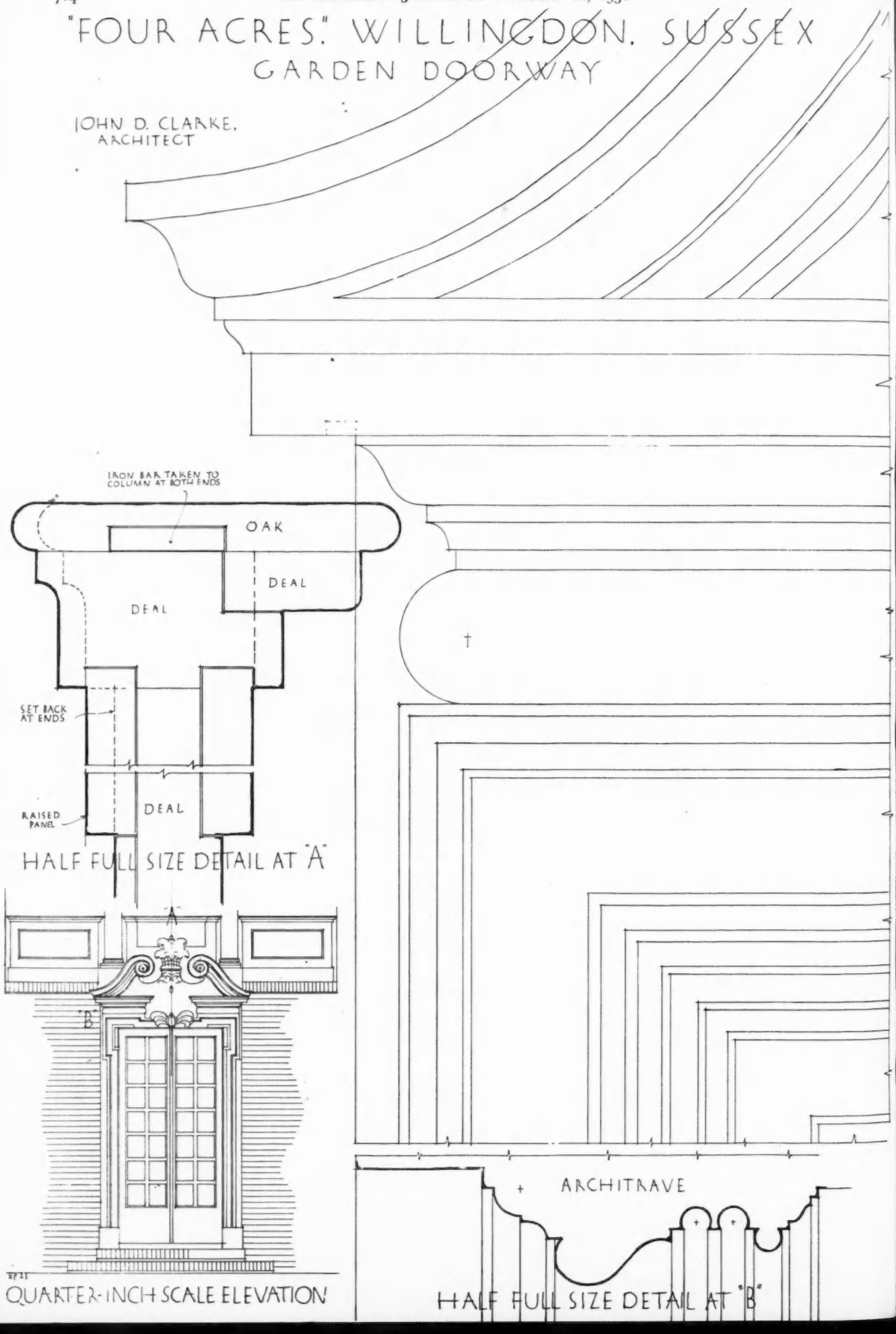
Reference to the detail of this capping, which concerns the centre bay with a raised panel, will make this construction clear.

The drawings reproduced overleaf may be read with architects' scales.

"FOUR ACRES." WILLINGDON, SUSSEX

GARDEN DOORWAY

JOHN D. CLARKE, ARCHITECT



HALF FULL SIZE DETAIL AT "A"

QUARTER-INCH SCALE ELEVATION

HALF FULL SIZE DETAIL AT "B"

THE ARCHITECTS' JOURNAL



WEDNESDAY, NOVEMBER 12, 1930

ENGLISH-MADE BRICKS

THERE are those who never tire of lamenting the breakdown of local building traditions. The erstwhile traditional methods of the Cotswolds, of Sussex, of Cornwall are wellnigh obsolete, and brick and concrete, tile and slate, not to mention all the substitutes made of compressed anything, are becoming ubiquitous. Modern conditions, particularly facilities of transport and travel, are, for the most part, responsible for this change. To some extent the change may be justified, but a great deal of nonsense is talked by advocates whose common sense is unequal to their efforts of advocacy.

Some even go so far as to advocate the building of houses with any material rather than with those generally acknowledged to be the best for the purpose; and England is a country particularly rich in brick-making earth. It has been stated that the inability to build brick houses today is not so much due to a shortage of bricks or bricklayers as of plasterers. Well, if that be so, let us build houses without plaster. Let us fair-face the inside of our brickwork and lime-whiten it. By this means, and by the use of wall-boarding, the plasterer may be altogether dispensed with. An insistence on a plastered covering to brickwork either arises from ignorance or is a species of snobbery. And we are inclined to think that a plasterless brick house would be preferable to a plasterless steel house.

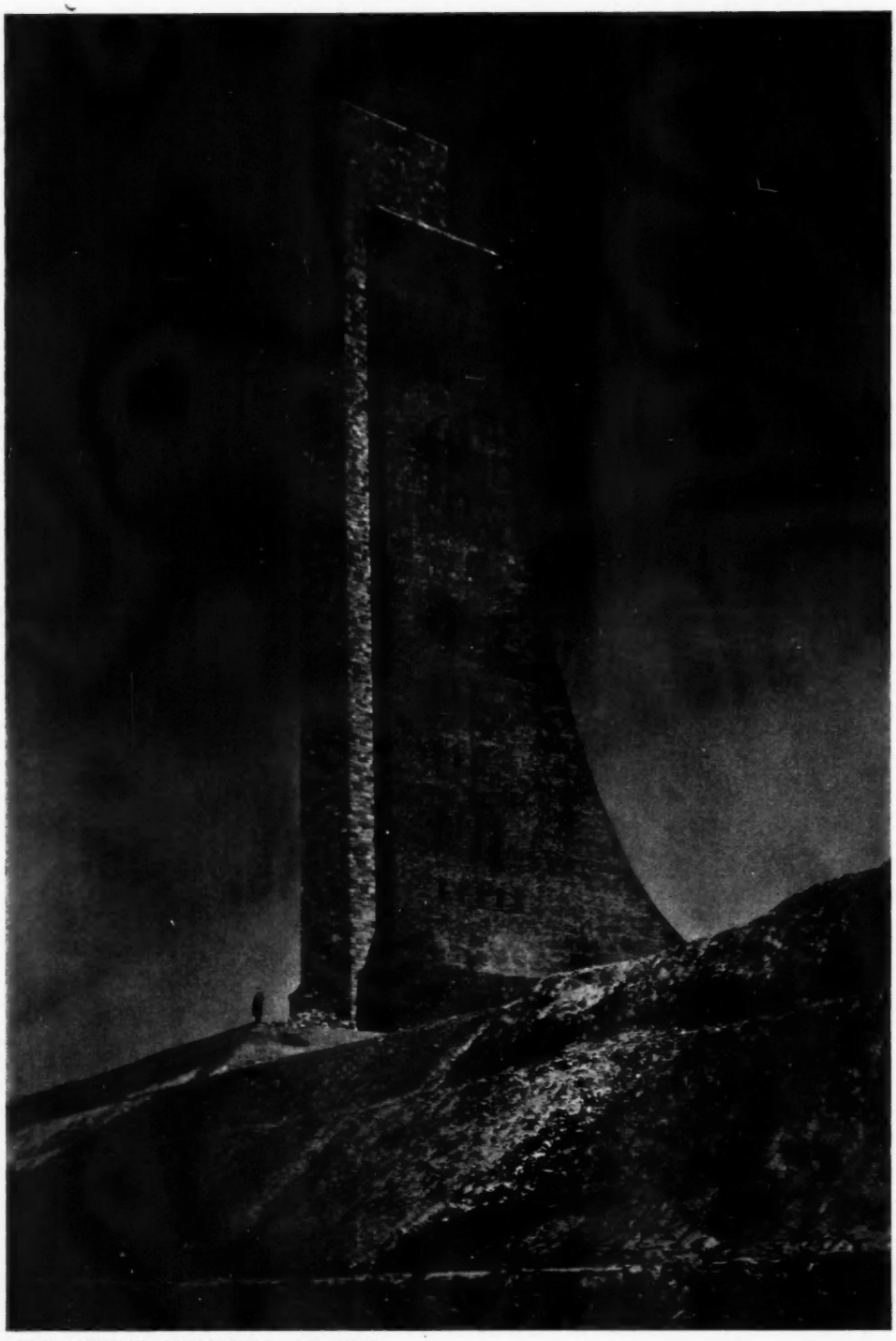
Be that as it may, it is, to say the least of it, ironical that the country should be suffering from such an acute shortage of dwellings, a country, moreover, so rich in good brick-making earths, while at the same time brickyards cannot sell their products. Are there causes for this which can be in any way altered?

Various suggestions have been put forward from time to time to remedy the present difficulties of the brick-making industry in England. One proposal is for the imposition of a special tariff under the Safeguarding of Industries Act; another is that the Government subsidy should be given only to houses which have been constructed with materials of which a given minimum percentage is of English origin.

Now it is true that for certain articles small sales at high prices and restricted output may be desirable—desirable, that is, both as regards profits to the manufacturer and service to the community, but bricks and tiles are not such commodities; nevertheless, the manufacturers adopted that policy in the years immediately following the war, and it was one of the contributory causes of the collapse of the Addison scheme. We are not at all convinced that there has been any change of policy in the intervening years; if this be so, it is surely a contributory cause today of these unpleasant conditions. The success of the foreign competitor is due not a little to the fact that he can give prompt delivery of large quantities of goods.

Another contributory cause of the inroads made by foreign competition is, though to a decreasing extent, to be found in the use of obsolete plant. Manufacturers in the past have not been over-eager to avail themselves of the most modern apparatus, and it will be remembered that England was one of the last countries to adopt the Hofmann kiln. Yet a third cause, and one which we hesitate to mention for fear it shall be said that we have an axe to grind in so doing, is the difference in the quantity of advertising between the distributors of the foreign goods and the manufacturers of the British. The merchant looking for fresh markets knows that without the aid of advertising his task would be an impossible one, but the old-established manufacturer is apt to think that he can do without an ally of whom his father and grandfather perhaps did not stand in need.

But something more fundamental than any of these matters is giving the foreigner an advantage, and that is the attitude today towards work. It is possible to suggest many causes for the alarming growth of hostility towards work, but the fact remains that so long as it exists, so long as work is evaded or grudgingly performed in England, the nation is competing at a disadvantage with those countries which have different ideals, and the decay of its trades and manufactures must inevitably continue.



THE MARINE MEMORIAL AT KIEL

The first and most important section of this memorial has now been completed from the designs of G. A. Munzer, of Düsseldorf. From a high bluff of the coast the tower rises sheer, on its seaward side, to a height of over 325 feet above water-level. The aim has been to take account both of its purpose and of the character of the locality. Fragility of detail has been avoided in the effort to secure a stark and massive effect. In the brickwork a strong contrast is obtained between the rustic finish of the seaward side and the much darker colour of the sweeping slope towards the land.

The complete layout provides for a large ceremonial space, to accommodate 10,000 people, enclosed by arcades connected to a hall of memory, enshrining memorial tablets and inscriptions. On the site of a former vast subterranean artillery coast defence, an underground hall of consecration is projected. The photograph and these notes on the work are reproduced by courtesy of Die Baugilde.

NEWS & TOPICS

PARLIAMENTARY NOTICES
HOUSE OF COMMONS
AT 11
Rabbits Bill and Architects (Registration) Bill, second readings.
—*The Times*, Nov. 7, 1930.

FORTUNE has this Session favoured the Architects (Registration) Bill, which is, indeed, in danger of becoming one of those "hardy annuals" with which the House of Commons is all too familiar. Lt.-Col. Moore, who sponsors it this year, secured only the twenty-fifth place in the ballot, and it seemed as if once more the hopes of the promoters would be doomed to disappointment. The Bill was put down as the second Order for last Friday, which meant that, in all probability, it would not be reached and hence would be indefinitely postponed. But, as Fate would have it, the Rabbits Bill, which was the first Order, was disposed of in a couple of hours, and another two hours or so proved sufficient to convince the House that the Architects Bill ought to go to a Standing Committee. Yet another stroke of luck occurred when, in the middle of Col. Sinclair's speech, a member called a "count"—it may be remembered that Major Tasker counted the Bill out in 1928—but this time the necessary quorum of forty members was easily found within the two minutes allowed by the Standing Orders, and the debate proceeded.

*

The further progress of the measure now depends on the willingness of the promoters to make concessions to bodies outside the R.I.B.A. This has always been the stumbling-block, but Lt.-Col. Moore, on Friday, was so persuasive and so ready to meet all criticisms in Committee, that the prospects of agreement appear to be brighter than they have yet been. Mr. Short, the representative of the Government, rather damned the measure with faint praise, but neither he nor any other member voted against its second reading. It was as long ago as 1927 that the Bill was first introduced in the Commons. In that year it went to a Select Committee, who advised that it should be withdrawn and reintroduced next Session in an amended form. This advice was taken, but next Session the Bill was "counted out." The following year the Bill was introduced into the House of Lords by Lord Crawford, but, after a speedy passage through the Upper House, the Dissolution of Parliament, in May, 1929, prevented its consideration by the Commons.

HOUSING : THE COUNTER-REVOLUTION

Last week's leading article drew attention to what was termed the counter-revolution in housing. This was no mere alarmist description. I learn that the Minister of Health has already replied to the remarkable proposals of the National Federation of House Builders, that included sweating, so to speak, more houses, in closer blocks, on to the land, and publication of that reply will be awaited with keen interest. The letter of "Cui Bono?" that I understand is to appear upon another page expresses the considered opinion of specialized experience in the matter. But the Federation's manifesto that provoked this rejoinder is not the only sign of a new way of thinking; witness the case of Slough.

THE CASE OF SLOUGH—

It may be recalled that one among the "Letters from Readers" published on July 2 last disclosed a certain state of affairs in regard to Council houses at Slough. Rents, it then appeared, had averaged 25s. per week, whereas the average wage among an industrial population seldom exceeded 55s. per week. The Council was urged to build dwellings that could be let at rentals, including rates, of 10s. 6d. to 15s. per week, and the local ratepayers' association accordingly addressed the Ministry of Health on the question of relaxing the density rule of houses per acre in favour of twenty in place of twelve. The Ministry's reply, about the terms of which some uncertainty seems to have existed, occupied a large part of the proceedings at the Council meeting a week or two ago.

*

Presumably the Ministry would be loth to sanction a greater density were subsidy houses in question; but Slough does not want subsidy houses—"they would not consider further adding to the ratepayers' burdens." If building without the subsidy were in view, fifteen or sixteen, it appears, might very well be allowed. Now Slough is in a hurry for its houses, and there was some difference of opinion at the meeting as to whether it would save time to forward for sanction the interim layout of twenty to the acre or formulate a new one, with sixteen. Eventually, the former course was agreed to on the understanding that plans should immediately be got in. This done, the housing committee "would have plenty of time to vary the number of houses."

*

And it is over these plans that Slough, too, looks like falling from grace. For, if I understand the position aright, what it means to do is to invite *builders* to submit proposals for erecting houses on land belonging to the Council, such houses not to cost more than £300. It is estimated that land, roads and sewers would swallow up another £100—making £400 per house, against the £550 for the parlour-type, semi-detached dwellings of which experience has already been had. The words "architect" and "architecture" do not occur in the report of the proceedings; yet, if there ever was a situation that cried aloud for the exercise of just those functions which architects exist to fulfil, this is one.

—AND OF MANCHESTER

It is evident enough that the problem of securing cheaper houses is exercising many minds. There is more to hope from investigation on the lines of the motion carried in the name of Mrs. E. D. Simon at Manchester. A special committee is to report why Manchester houses are too dear, and what can be done to cheapen their cost. And the reason why this course looks hopeful is that, according to opinions collected by *The Daily Express*, houses that are now costing Manchester £500 could be built for £400 to £420 if the work were improved in organization.

THE PROBLEM OF RENT RESTRICTION

The Government has instituted two Committees to inquire into the present working of the Rent Restriction Acts. One is to survey the whole aspect of the question, while the other will deal only with the Acts as they relate to agricultural workers. It has been obvious for some time that these Acts have been in operation for a long enough period to have become riddled with anomalies, in some cases amounting to a complete reversal of their original intention, which was to safeguard poor people from the crushing effects of unjustifiably increased rents in the period immediately following the war. The continuance of rent restriction keeps alive an artificial state of affairs which many interests would like to see altered, and it is

difficult to know what alterations could be made to do justice all round, and yet prevent the upheaval which their entire removal would precipitate.

"A FORM OF SLOW DEATH"

Meanwhile, the recent leader under this title disclosed a heartrending aspect of the slum evil, the major social problem of our times. Mr. Greenwood, the Minister of Health, who will be remembered for his fine work in this cause, is making impassioned appeals to city authorities to start upon large-scale reclamation of slum property under the Wheatley and Greenwood Housing Acts. At the recent Manchester Housing Conference he addressed a large meeting. "I cannot rest," he said, "while people as good as we are live . . . in conditions which are not decent in a stud farm. . . . Whilst we have got to kill the slums that are, we have also to prevent the creation of more, and to attack the problem of the semi-slum, the areas that will be condemned in another five years."

★

The point of the whole slum problem lies in its large-scale clearance, because if slums are economically wasteful when considered from the large and the humane aspect, their substitution by properly-planned decent habitations is a saving to the community and to the country which can only be measured when we make the whole national reckoning. Individuals make profits from slums by keeping them slums; communities will make profits of other kinds as well, by making them safe to live in.

GERMAN TOWN-PLANNING EXPERT FOR RUSSIA

I shall not be in any way surprised to find that Russia, formerly the most backward and isolated of European nations, has in a few years' time placed herself above all other nations in the march of so-called progress. Whether the national-capitalistic system which underlies the Five Year Plan will survive its term or not, Russia will have so largely benefited by the enormous effort to reorganize upon scientific lines, that the other individualistic, custom-ridden nations may easily find themselves at a disadvantage. Be that as it may, architecturally Russia is to benefit by the services of the most advanced of German municipal architects, for Ernst May, whose Frankfort housing schemes have placed him in the front rank of active modernists, has signed a five-year contract as town planning and architectural adviser to the Soviet Government.

★

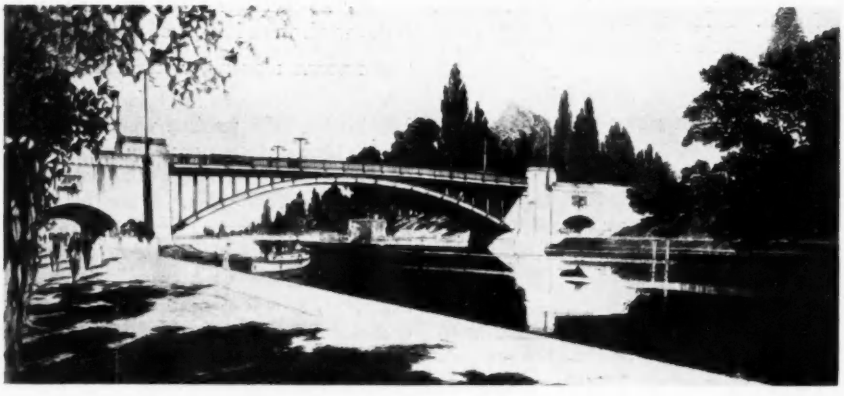
If he is given the opportunity, and if there is money available to carry out work on a really large scale, we may judge from our own knowledge how great and lasting will be his impression upon a country which the new industrialized future is so largely to remodel. Herr Ernst May's work at Frankfort has been expensive, despite its bald simplicity, and one imagines that his powers will be hardly taxed by the necessity for extreme economy which will obviously prevail in Russia.

ARCHITECTS AT GOLF

When the enterprising planner's not a-planning—why, golf may profitably occupy his time. Hence the newly-formed Architects' Golfing Society. Perfect weather and a course in excellent condition made the first meeting, last month, at the Northwood Golf Club, Middlesex, a most enjoyable occasion. The morning round was a Medal score for the Selby Cup (transferred from the A.A. Golf Section to the new society). This was won by L. E. C. Simpson (12) : 75, with Stanley Heath (scr.) : 77, and H. Ashwell (1) : 78. H. Ashwell (1 down) and H. Chalton Bradshaw (3 down), in the afternoon, won the silver cigarette cases presented by Sir Banister Fletcher, for a round against bogey.

A SIMPLE STORY BY HORATIO JAY

There was once an architect and he designed a house, and being very pleased with the house he took a photograph of it with a camera he had bought, and sent it to the newspaper. And the art editor of the paper looked at the photograph upside down, and thought at once what a funny house it was, and he said to the editor, "This is a funny house," and the editor said, "H'm. It is a funny house. We ought to print that. That's news." And so it was printed just as they looked at it, upside down. But when the architect saw his house printed in the paper upside down he was very angry and he went to the newspaper to complain. But the editor and the art editor looked at the photograph again and said they were quite sure that it was the right way up, and they called the office boy in as well, and he said he was quite sure, and the printers said, of course, they wouldn't have been allowed to print it if it had been upside down. And so at last the architect was convinced that he was wrong, and that the house really wasn't upside down, and the next day the paper printed letters from people saying what a fine house it was, and asking the architect if he would do them some like it. And so the architect said he would be very glad, and he went on doing so till the day he died. And when he died he left instructions telling everybody that he still felt sure it was upside down, but that if they buried him upside down everything would be all right. And so they all laughed and buried him upside down. ASTRAGAL



This is a perspective of the proposed new bridge at Maidenhead, designed by Sir John Burnet and Partners, in collaboration with Sir Douglas Fox and Partners, and referred to by Astragal last week. Its publication has since drawn letters in The Times *from Sir Owen Williams, assuming that it was designed to "use as much steel as possible"; and from Mr. C. J. Kavanagh, of the British Steelwork Association, in disclaimer.*

THE PHŒNIX THEATRE, CHARING CROSS ROAD

SIR GILES GILBERT SCOTT; BERTIE CREWE; CECIL MASEY—ARCHITECTS

THE Phœnix Theatre has been built for Mr. Sidney L. Bernstein, and is intended for use for every variety of entertainment as well as for those plays which follow the more traditional paths. It has been conceived with all the historical traditions in mind of the older Phœnix of the seventeenth century, which had few if any rivals in English theatrical annals. It was the first public theatre to stage an opera, the first to see an heroical play, the first to permit a woman actor on its boards, and the first to use movable and painted scenery.

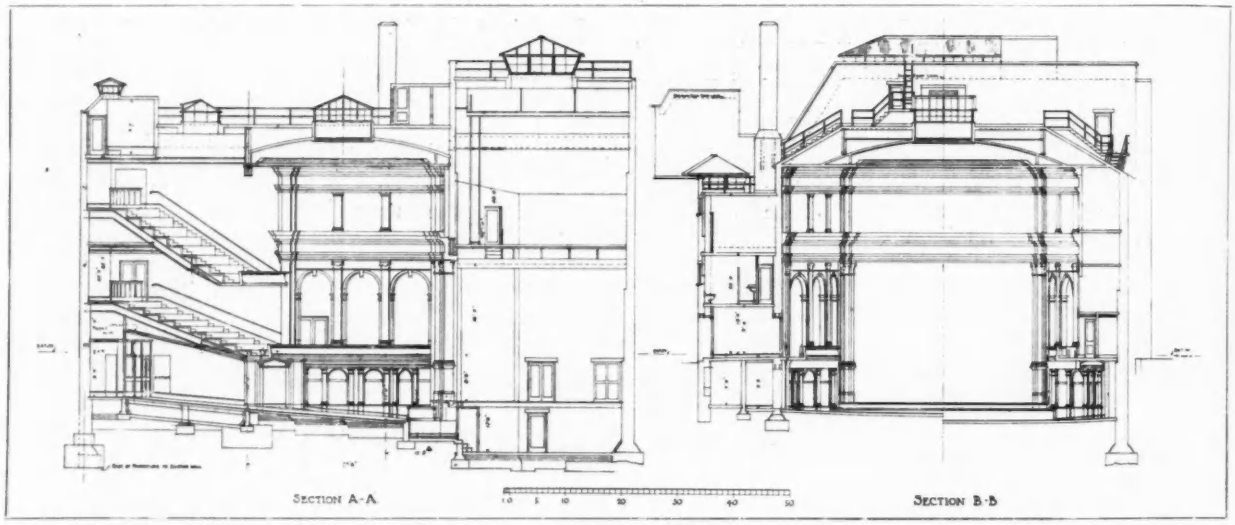
In equipment the new Phœnix allows of the most modern and varied theatrical manipulations it is possible to conceive; in decoration it emphasizes those elements of luxury peculiar to the architecture of the Italian Renaissance princes, and is of that period prior to the transition to the Baroque.

Most of the decorative ideas have been obtained from Raphael, Giulio Ramano, Girolamo da Carpi and Giovanni da Udine. The influence of these artists is noticeable, particularly on the staircase leading from the Phœnix Street entrance to the dress circle and in the gangway or foyer at the back of the stalls. The latter has been adapted from the loggia in the Villa Madama, built by Raphael in 1519, with decorations added three years later by Giovanni da Udine.

The influence of Michelangelo is seen in the columns of the proscenium and the dome above the auditorium. Certain details have been "borrowed" intact and unaltered, such as the coffered ceiling in the Phœnix Street entrance foyer and the columns in the Charing Cross Road front, the originals of which are in the courtyard,



Looking from the upper circle towards the Royal box. The panels of the top cornice and the fireproof curtain contain reproductions of paintings by Sellaio, Tintoretto, Giorgione, Titian, Corbizzi and Pinturicchio. On the fireproof curtain is a copy of Sellaio's "Triumph of Love," at the Oratorio di S. Ansano, Fiesole.

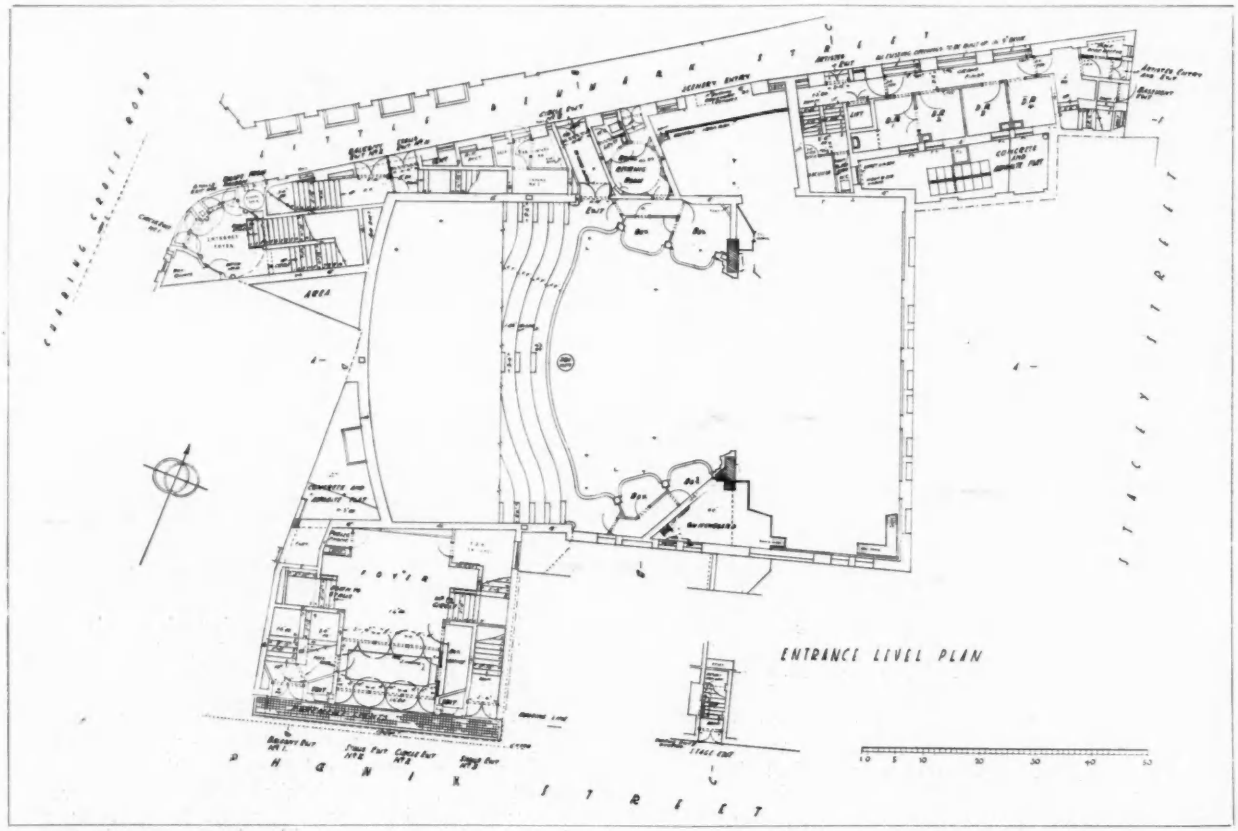


These two sections should be studied in conjunction with the plan reproduced below. Fresh air enters at roof level and, after being washed and cooled or heated, is discharged into the auditorium from the domed ceiling, and the tops of the boxes, circle and stalls. It is extracted under the seats of the stalls and circles, and discharged at ground level.

built in 1538, of the Palazzo Boncompagni at Bologna.

The gayest colours—cream, black, red, amber, blue and gold—are used both externally and internally. Perhaps in the Charing Cross Road foyer the colours are used with the most striking effect.

Messrs. Bertie Crewe and Cecil Masey are the architects for the work, while Sir Giles Gilbert Scott, R.A., has been responsible for the design of the Charing Cross Road elevation, and M. Theo. Komisarjevsky for the interior decorations. The decorative paintings, after a number of famous Italian Renaissance artists, are the work of M. Vladimir Polunin.



The Phœnix Theatre, London.] [*Sir Giles Gilbert Scott; Bertie Crewe; Cecil Masey—Architects.*

Plan at entrance level. There are two entrances to the theatre: one from the corner of Charing Cross Road and Little Denmark Street; the other from Phœnix Street. Each gives access to an independent entrance foyer, containing a box office, and staircases leading to the stalls and circle. Entrance to the Royal box and retiring room is from Little Denmark Street.





(*Right*) *The approach to the circle saloon from top of staircase from Phœnix Street entrance. The two balconies overlook the staircase.*



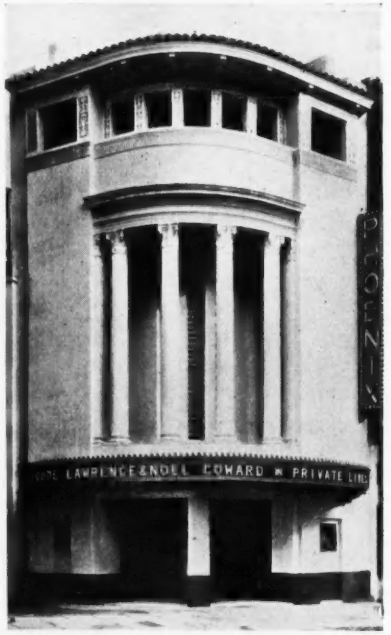
(*Below*) *The Charing Cross Road entrance, and its foyer.*



(*Above*) *The Phœnix Street entrance, and its foyer.*

(*Left*) *The foyer at the back of the stalls is adapted from Raphael's loggia in the Villa Madama.*





The Phœnix Theatre, London.]

[*Sir Giles Gilbert Scott, Bertie Crewe, Cecil Masey, Architects.*



The sports pavilion, looking from the playing-fields. The other side faces the open-air swimming bath, see pages 723 and 725. The camp is at the top of Ashdown Forest, overlooking the South Downs, and giving a glimpse of the sea through Newhaven gap.

SUSSEX SUMMER

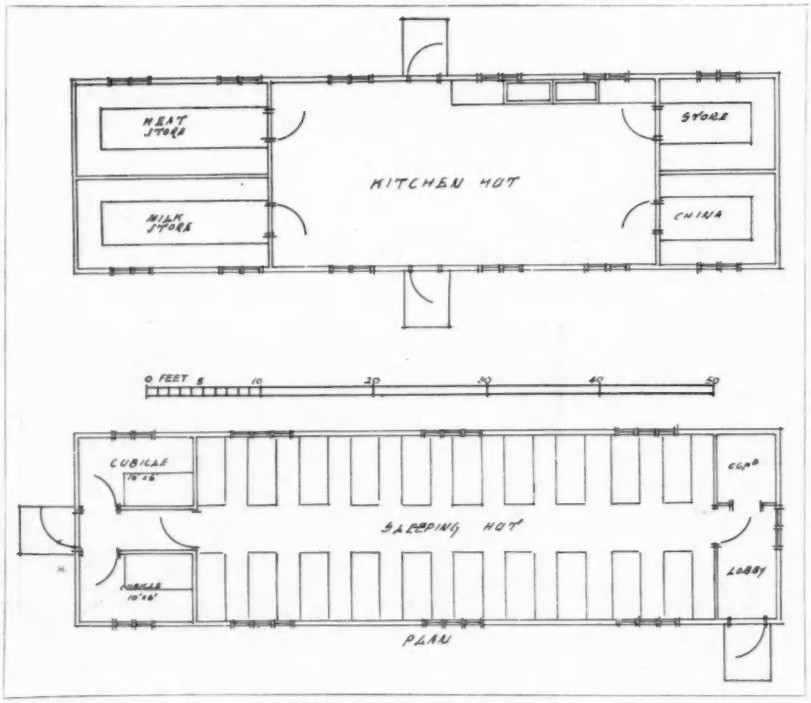
DESIGNED BY
(COLERIDGE, JENNINGS

SUSSEX is a county dotted over with health and welfare colonies of one kind and another. One of the most recent, the Isle of Thorns Summer Camp, is situated at Chelwood Gate, not many miles from the well-known Chailey Heritage, sited on the top of Ashdown Forest; the ground overlooks the South Downs and gives a glimpse of the sea through the Newhaven gap. The undertaking is being developed for the Manor Charitable Trust, whose other activities in the East End of London include the running of dental clinics, and of clubs for working boys, devoted to swimming and other sports. Two of the most prominent are in Hackney and Hoxton. At Leyton the Trust have a big sports ground, laid out for Rugby football, tennis, etc.

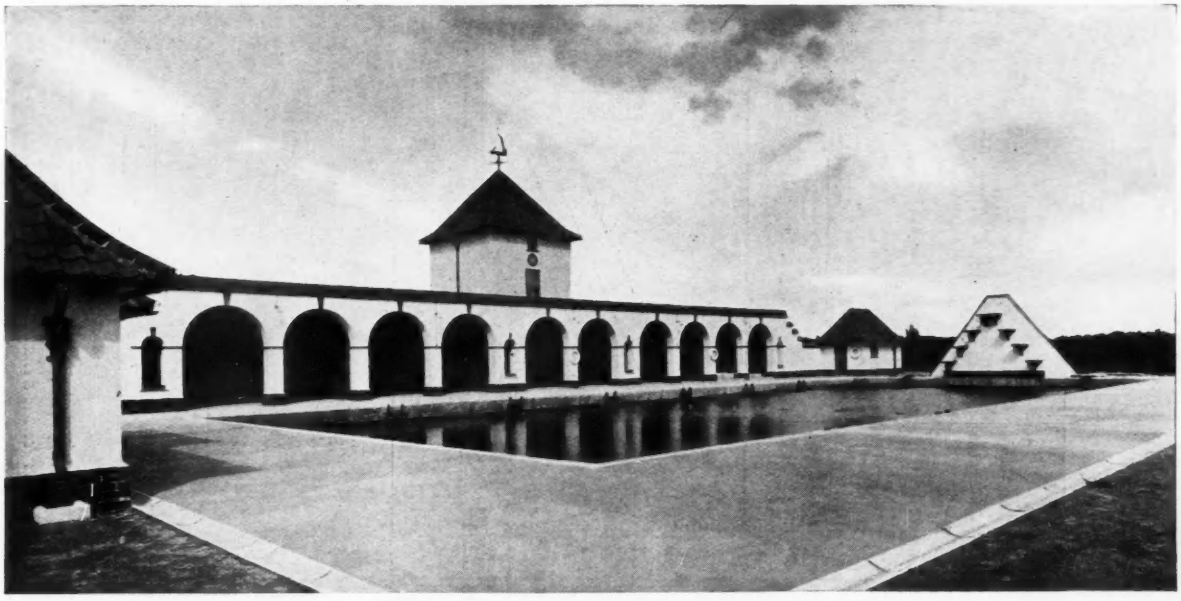
In deciding to formulate the Isle of Thorns camp the Trust have not only gone a little farther afield, but caught the youngster at an even earlier stage. At the moment the camp is intended for the use of scholars in elementary schools who come in parties, made up at these schools, and stay for a period of two weeks. If they are accompanied by a teacher, the time spent in the camp is regarded as school time by the education authorities, provided a certain part of the day is devoted to lessons. Thus, it is not necessary for parties to be limited in their visits only to the duration of the recognized school holidays. Preference in the use of the camp is being given at present to the poorer classes of London, but it can readily be imagined how valuable it might eventually become to the Toc H, Boy Scouts and other organizations.

At present a beginning only has been made with the sleeping huts, but when complete, the establishment will accommodate about 500 persons.

The principal features of the camp are the large open-air swimming bath, which is 120 ft. long and 50 ft. wide, and the sports pavilion. The latter is of brick and plaster, and consists on the bath side of an open arcade for dressing cubicles and on the playing-field side of a cricket pavilion with



Plans of a kitchen hut and a sleeping hut. They are one story high, and resemble in external design the best type of Army hut. In each sleeping hut are two cubicles for the masters.



The sports pavilion, looking from the swimming pool. In the arcade are the boys' dressing sheds. The small lavatory building on the left of the diving platform is balanced by one of similar design on the right. For detail drawings of pool see page 724.

CAMP FOR BOYS

JOHN COLERIDGE
AND SOIMENOW)

changing-rooms and stores. Surmounting the pavilion is a water tower on which is a curious weathercock of a figure diving. The playing-fields are very large, and include two cricket pitches, two football grounds, and nets, and still there is plenty of ground to spare. A manager's house is built on the estate, and there are kitchen, isolation and disinfecting huts. A stream in the valley has been drained, and a lake formed from which the bath and huts are supplied. The whole of the water is chlorinated before being pumped up the hill. A large electrical plant has been installed to light the finished camp. It would be impossible for the Trust to find a more healthy site, and the contrast between the London streets and this open forest is remarkable.

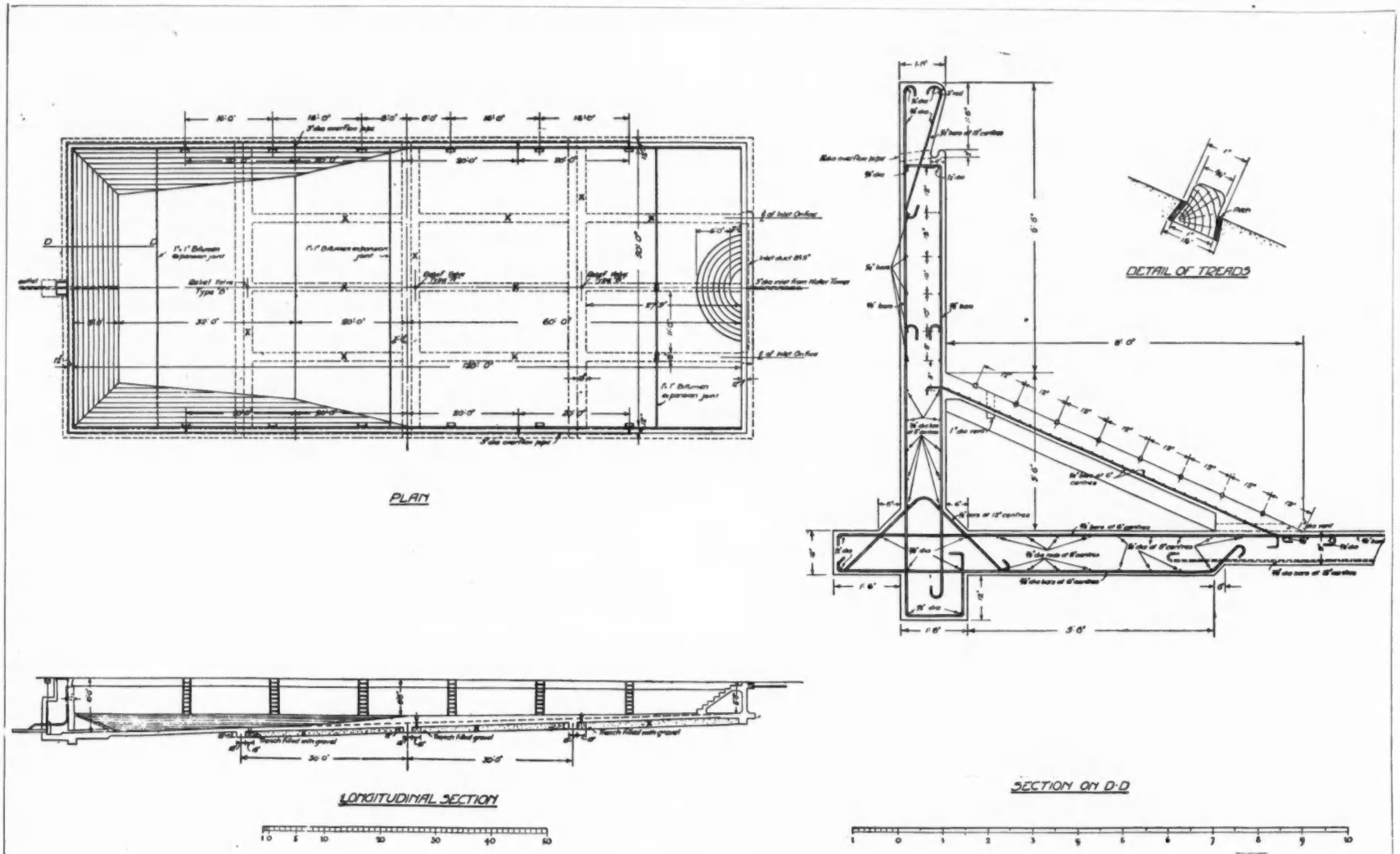
All the buildings are designed in a simple style, with little or no ornament, and include features of unusual architectural and constructional interest. A case in point is the ingenious and economical manner in which the double-purpose sports pavilion has been designed.

The pool itself also has more than one ingenious detail. There is the sloping footway at the deep end, which will be an everyday safeguard to any boy who may get out of his depth and into difficulties in the water. This footway is 8 ft. wide, and extends completely across the deep end, and for a distance of about 55 ft. along either side. At its highest point it reduces the maximum overall depth from 10 ft. to 6 ft. 6 ins. Having regard to the water-level, this brings the swimmer's head well above it.

Again, the channel which runs round all four sides of the pool, about 18 ins. below the top, is unusual. It serves two purposes, providing a groove for the swimmer to hang to, thus obviating the use of the handrail, which has been directly responsible for many a sprained or broken limb, and acting as an overflow. At the shallow end are steps down into the pool, and a small pavilion containing a store room and dressing-boxes for the masters. Along each side are seven ladders for the egress of swimmers.

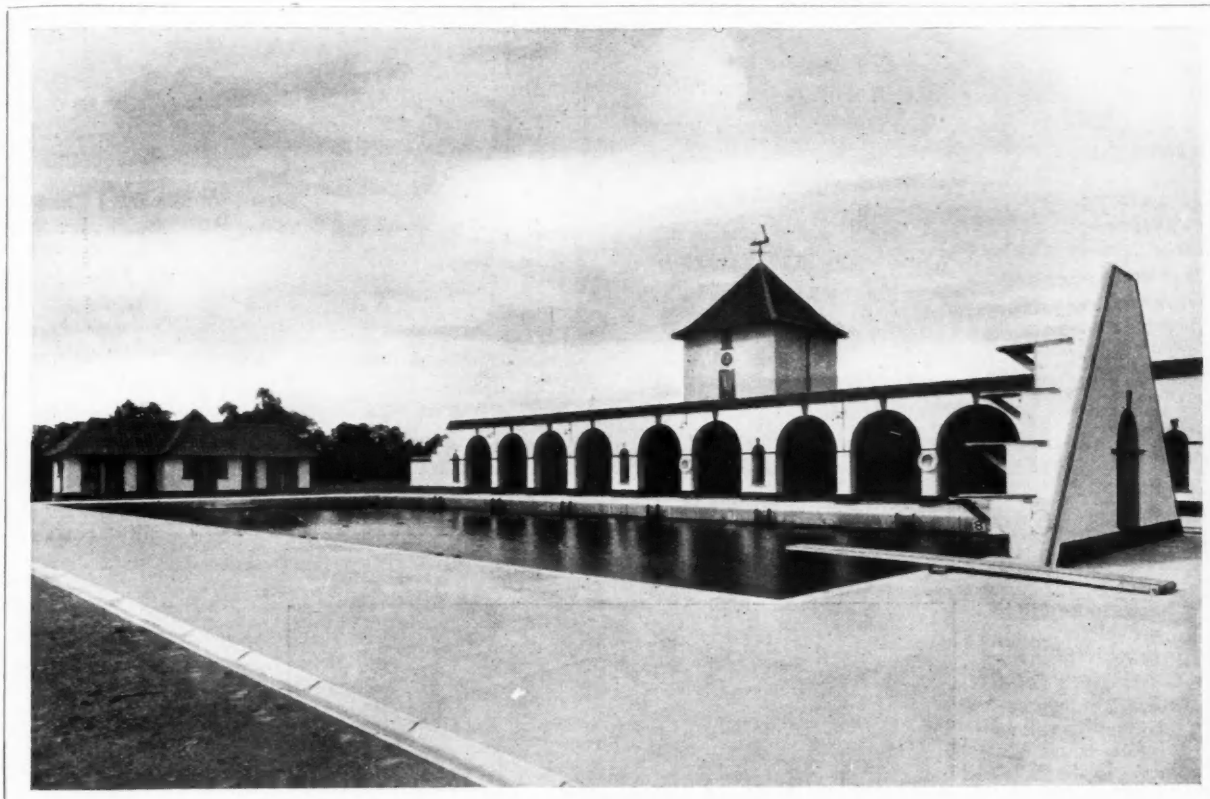


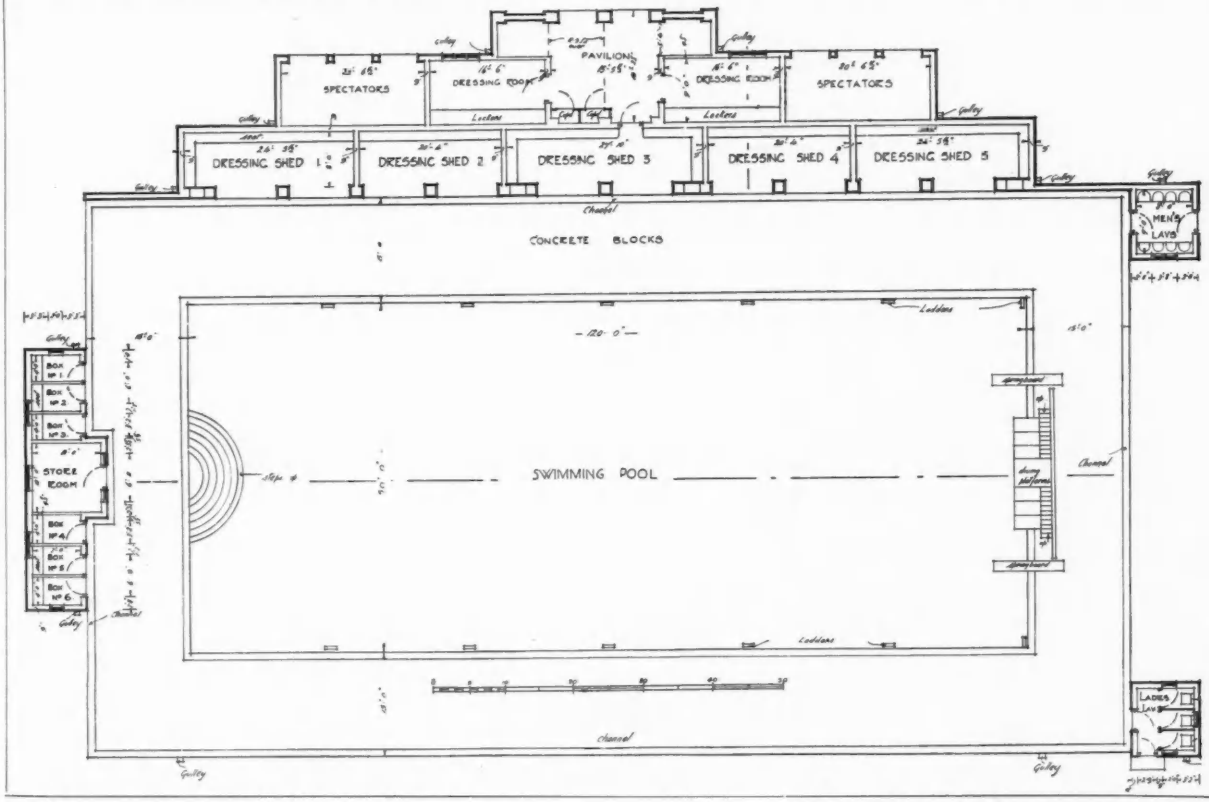
A typical sleeping hut. Special care has been taken to secure the highest possible degree of comfort, the materials being selected chiefly for their resistance to climatic conditions.



Isle of Thorns Camp, Sussex.] [*By John Coleridge (Coleridge, Jennings and Soimenow).*

Plan and sections of swimming pool. At the deep end is a sloping footway for the use of boys who get into difficulties in the water. At water level is a channel, serving as both handrail and overflow.





Isle of Thorns Camp, Sussex.] [*By John Coleridge (Coleridge, Jennings and Soimenow).*

The sports pavilion, looking from the diving-platform end of the swimming pool; and plan of the open-air swimming bath, sports pavilion, etc. The bath itself is 120 ft. long by 50 wide. The other side of the pavilion faces the playing-fields (*see page 722*).



The south-east or entrance front of the new rectory at Wolverton-with-Ewhurst. Every fourth course in the brick walls is formed of snapped headers, rather more bluish than the remainder. The roof is tiled; and the weather-vane, with other ironwork, was made by a local smith to the designs of the architect

COUNTRY RECTORY IN HAMPSHIRE

DESIGNED BY EDWIN GUNN

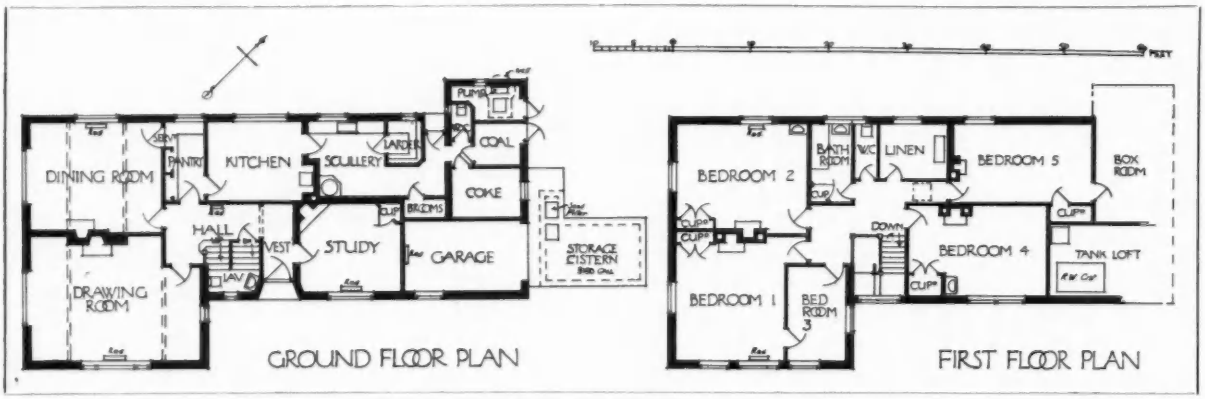
THIS house stands on glebe land, roughly triangular, tapering to a point at the N.E., but widening to the dimensions of a tennis court immediately to the S.W. of where it was decided to site the house, beyond which it shelves steeply down towards the main Newbury - Basingstoke Road. These facts fixed the position for garage entrance and main doorway, and made it desirable that the principal rooms should look south-west.

The house is built with 11-in. cavity walls, faced with 2-in. local multicolour bricks. The striped effect, due to the use of a line of bluish snapped headers each fourth course, is much less apparent in reality than in the photograph. The roof is covered with Twyford tiles and the casements are lead-glazed cottage casements in wood frames. Water-supply being often sparse, all the roof water is conserved in roof tanks or underground; the normal supply is by deep well and petrol pump.

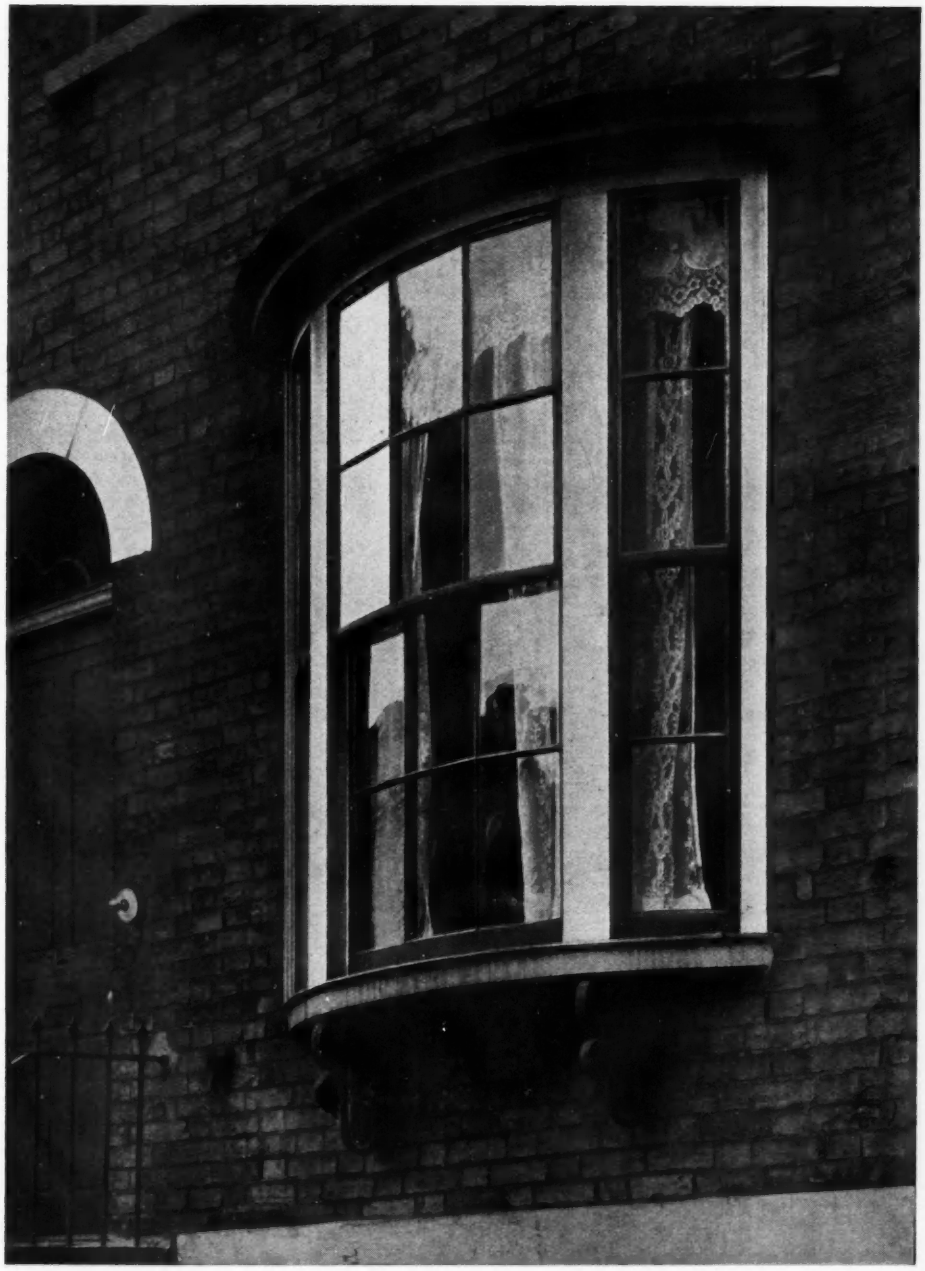
The cost of the house, including radiator heating, and septic tank drainage, was approximately £2,500; about £200 more has been expended on the well, water storage, and the pumping set.



The fireplace in the drawing-room, made in wood by the general contractor, encloses a surround of light tiles, for the most part plain, but three bearing printed designs.



The architect's drawings of the ground- and first-floor plans. On the ground floor are drawing-room, dining-room and study, and a garage is incorporated; above are five bedrooms, of which one serves the purpose of a dressing-room.



ENGLISH PRECEDENT No. 141

BAY WINDOW, BEDFORD TERRACE, TUNBRIDGE WELLS, KENT

This illustration, from Tunbridge Wells, Kent, proves once again that curved bay windows with flat sashes are an abomination, if not an impossibility, for even the small single-light sashes here are curved, as may be seen most clearly from the one farthest from the camera. Though the cost of curved joinery is, of course, high, the expense is amply repaid if curved bays are sparingly used to add life and distinction to long, even rows of dwellings. One-story bays, like the one here shown, require some sort of bracket where they do not reach down to the ground. The idea of calling in the blacksmith to supply these brackets is much to be commended, the design of these particular examples less so.

LETTERS FROM READERS

Below we print the letter from an experienced authority on housing announced on last week's leader page.

Housing—The Counter Revolution

SIR,—I write as one intimately connected with what has been done by local authorities since the war in the provision of houses for letting, and I am a little reluctant to believe that any proposal to transfer present housing obligations to private enterprise is made seriously.

The after-war magnitude of the problem of housing shortage demanded that the remedy should be operated by a central authority, and not be left to the unco-ordinated efforts of private individuals. If the present system of municipal building is to be superseded, for whose benefit is the change to be made?

From the scheme submitted by the Secretary of the National Federation of House Builders, it is evident that no relief is to come to the tax- or rate-payer, if the present subsidy is to continue. The tenant is to be deprived of the rent security now available to him in the municipally-owned house, for houses may be sold as well as let, and where a lump-sum subsidy is obtained, rents may be increased by any amount at the expiration of five years.

Definite suggestions are made for a lowering of the present standard, and judging by the inartistic atrocities with which private enterprise has littered the country, aided by the subsidy of the Housing, etc., Act, 1923, the country as a whole stands to lose by further patchwork development. It is unlikely that the building trade operatives will gain, for speculative builders, unfettered by any contract, have been known to depart from local labour conditions.

I can only think, therefore, that the proposals are made in the interest of the members of the Federation. In my opinion, the problem is still too serious to warrant any tampering with the existing and well-organized machinery set up by local authorities which has already achieved a great measure of success. The proposed scheme seeks to benefit private enterprise at the expense of the tax- and rate-payers, for those who are a profitable proposition are to be housed by the speculator, leaving the slum-dweller and the very poor to the care of the local authority. Had the members of the Federation studied the Housing Act of 1930, they would have seen that the only hope of the very poor obtaining reasonable housing accommodation rests upon the possibility of the local authority dealing also with the housing of those who can afford to pay a normal rent.

Some of the points of the scheme may be more closely examined, as, for instance :

1 : *Rents.*—It should be common knowledge that the rents charged by local authorities for houses built under the Housing (Financial Provisions) Act, 1924, are so fixed that, after making provision for proper management and maintenance, they now oblige local authorities to contribute a sum of £3 15s. per annum for a period of forty years. Unless the standard of building is lowered, there is little chance of speculators building equally good houses at lower prices than are current in large contracts. Therefore, tenants will be compelled to pay higher rents for the privilege of occupying speculators' houses. It may be news to the Federation that some local authorities are at present erecting houses with every amenity rented at less than 7s. 6d. net.

2 : *Density and Size of Houses.*—Whilst there may be certain instances in which, to complete a town development, a higher density than twelve houses per acre would seem advisable, generally speaking in the laying out of large estates, after making provision for the necessary open spaces and playgrounds, a density of twelve per acre is not found excessive. Doubtless the speculator will anticipate that the local authority will be responsible for the cost of such open spaces, thereby adding a further burden to that already shouldered by the rate-payer. There should be no objection to building houses in blocks of eight, relieved with smaller blocks of four and six. In fact, these blocks are architecturally preferable to a number of ill-proportioned pairs of houses.

3 : *Roads.*—There is little doubt that considerable saving could still be effected by a reduction in the specification for roads required by many local authorities, though there are naturally limits to which such reduction can be made in view of future maintenance. The saving, however, should go into the pockets of the tenant and not the speculator.

I am afraid that those in need of rented accommodation have little to hope for from the scheme now submitted to the Minister of Health, and I am of the opinion that the Minister will take the wise course of leaving the problem in the hands of the local authorities, relying on their good will and co-operation in carrying out recent housing legislation, both for the relief of the slum-dweller and the provision of adequate accommodation for all persons of the working classes.

CUI BONO ?

Bungalophobia

SIR,—Mr. Casson, in your last issue, states that I have missed the point of his argument. As I understand his views, they are given below, together with my suggestions :

1 : There is no alternative to the factory-made bungalow because those designed by architects are more expensive.

I suggest that this has not been proved, if the cost of maintenance, efficiency of planning, and character of the building are taken into account. Architects frequently design temporary structures for a definite purpose, and they compare favourably in cost with the factory-produced building.

2 : Architects " have made no attempt to put upon the market a really attractive type of bungalow at a price which will compete with the trade article."

This is quite true, for it is not the architect's function to produce at a low initial price a " trade article " which may ultimately cost the owner more in maintenance, and which does not fit the site. The architect's job is to find the best solution for each individual problem, and this implies a study of the site, prospect, aspect, the requirements and means of his employer, as well as the soundness of materials and cost of upkeep.

3 : Mr. Casson suggests that if architects " issued designs classified according to the various districts of England, circulated those designs to local authorities, to local builders and to the Press, there might be some chance of the type of bungalow improving."

This is not a new idea; it has been discussed at length for many years, and so far found impracticable; it has met with only partial success in America, where it is on trial. The alternative is for speculative builders and local authorities to employ architects at a specially reduced fee to prepare designs. This system is in operation in many districts. The housing schemes carried out by architects for local authorities are proof that standardized buildings properly grouped and sited can be both inexpensive and pleasant in appearance; the average cost per house has now been reduced to less than £350, and these are *permanent* structures.

Undoubtedly the cheap factory-made bungalow could be improved if the manufacturers obtained skilled advice on the designs of such temporary buildings as they produce, but it is unlikely they will take this step as long as their customers are satisfied with the kind of building that is purchased from a catalogue. The undiscriminating

public provides the market for these goods.

I would ask Mr. Casson, before he makes further reference to the work of societies engaged in the preservation of the countryside, to investigate the *constructive* work that they are doing, namely, the promotion of more scientific methods of rural development, and the encouragement of a better standard of design in country buildings by arranging for free architectural advice on these matters.

W. HARDING THOMPSON

SIR,—Now that Mr. Stanley Casson has adopted my suggestion and published a photograph of his Cornish bungalow (or at least two gables of it), we are in a more definite position to appreciate his qualifications to speak on such topics.

The angle of the roofs and the chimney cans are somewhat unusual, and show certain subtleties. To say that such bungalows are an adornment to the lovely county of Cornwall or any other part of the country cannot be taken seriously.

No architect of repute wishes to compete with the trade article.

Does Mr. Casson expect to get a suit made to measure at the same price as a ready-made suit ? The one proposition is quite as unreasonable as the other.

WILLIAM DAVIDSON

Official Architecture

SIR,—Mr. Owen has amusingly sidetracked the issue of our exchange of compliments by dragging in the question of qualified men practising as official architects. I can only ask with Mr. Moran, "What's his idea in bringing that up ?" I was not aware that the debate at Olympia was whether the cause of architecture was best served by a relatively small percentage of qualified men among official architects.

Allow me, Sir, with all humility, to pay my respects to those enlightened and progressive gentlemen who provide us with parking spaces for slot machines, automatic boot cleaners, and bookstalls; to those who have so improved the jug and bottle and saloon bars of our public-houses that they are more than ever homes from home; to those who demolish all visible supports on the ground floors of second-hand buildings and make replacements with sheets of plate glass, crowned with modest facias and adorned with reticent lettering proclaiming in a still small voice to the bemused public the names of their proud owners; to those whose expression of such essentially modern buildings as telephone exchanges finds inspiration in a style of architecture at least 150 years old; to those who convert shops to popular eating-houses with a tasteful use o imitation brawn marble and incrusted panels—the ensemble set off with glass-top tables; to those whose knowledge of mahogany counter fronts, bank grilles, and glazed partitions is unsurpassable; to those who adorn our roads with prettily coloured petrol pumps nestling coyly against a background of asbestos sheeting; to those who rearrange counter fittings and transpose whole departments overnight to the surprise and delight of the regular customers of our great London stores; and last, but not least, to those who embroider our seaside resorts with the balustrade and bandstand style of architecture, and who are the mainstay of the precast stone industry of this country. In the noble name of commerce our towns and countryside are being so improved beyond all imagination.

Lastly, I wish Mr. Owen many happy returns of the outcome of the Calton Jail site business.

J. R. LEATHART

Sixteenth-Century Modernism !

SIR,—I was interested in Sir William Crawford's lively description of his new building in High Holborn, which appeared in the issue of THE ARCHITECTS' JOURNAL for October 29. This building is a good example of the modern functional architecture which is being developed to meet the needs of the times in which we live.

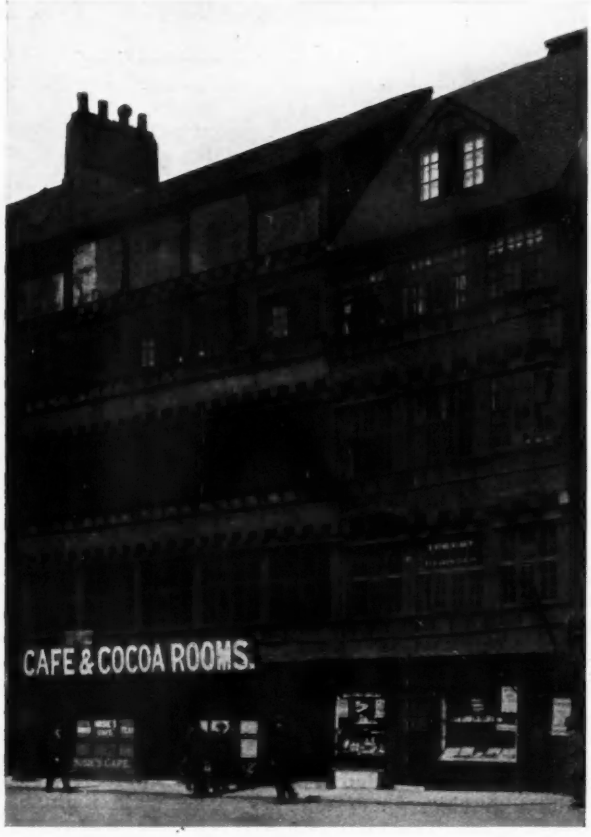
The outside elevation of Crawford's shows it to be a framed building with horizontal window bands along each floor. The windows are placed between about 2 ft. above floor level and the ceiling, and give the maximum possible of useful daylight inside the building. I submit, however, that such an elevation is not *tremendously* modern. On the Sandhill in Newcastle-upon-Tyne are some blocks of sixteenth-century buildings, of which I enclose a photograph. The outside elevation of these buildings shows that they are framed buildings with horizontal window bands along each floor. The windows are placed between about 2 ft. above floor level and the ceiling, and give the maximum possible of useful daylight inside the building !

It is interesting to note that the Elizabethans, with wood and plaster as their materials, solved the problem of the framed building in the same manner as the neo-Georgians with their steel and concrete.

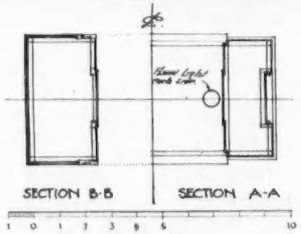
It has been reported Queen Anne is dead, but what about Good Queen Bess?

If architecture reflects the spirit of the age, and if Crawford's is an example of the coming architecture, which it is, then it is good to feel that we are becoming akin to the direct-thinking, vigorous Elizabethans.

R. W. GREGORY



Blocks of sixteenth - century buildings on the Sandhill, Newcastle-upon-Tyne, which, a correspondent suggests, reflect the same style of architecture as the new Crawford's building in High Holborn, W.C.

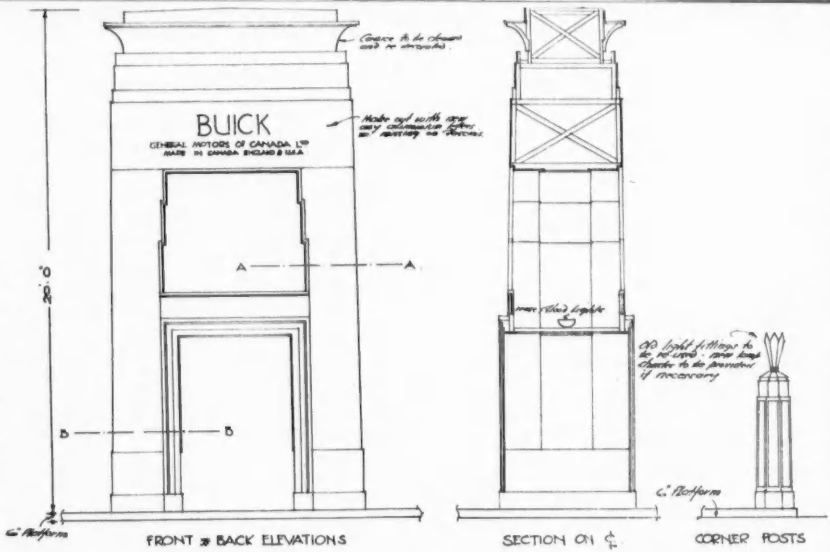


TWO MOTOR STANDS

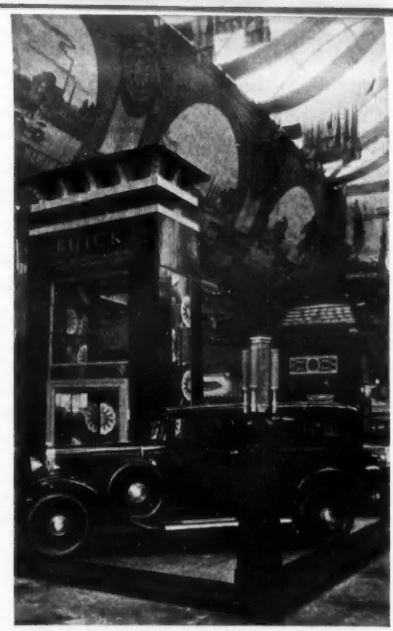
Olympia, 1930

DESIGNED BY BARBER AND WALFORD

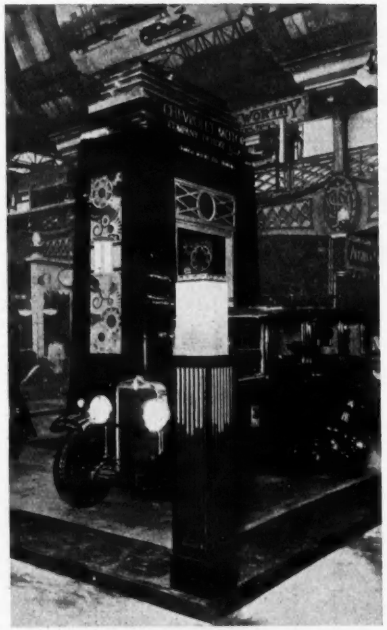
Both were built up mainly of plymax fixed to timber framework, and utilized certain existing decorative units such as bronze panels. The corner-posts were formed from 1 in. deal. On the Buick stand cupboards were provided in the pylon for switch-gear and for literature.



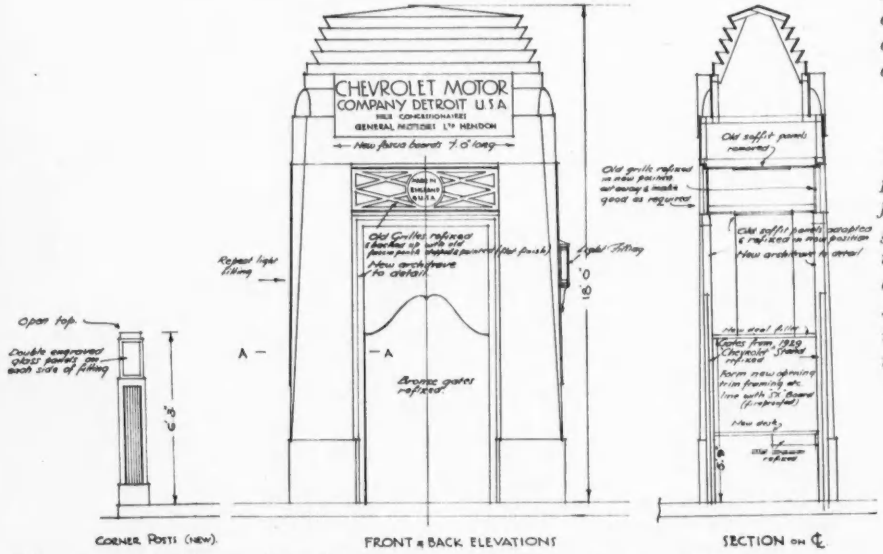
The decorative panels were painted on gilding metal plymax. The black background was designed so as to leave a line of the bright bronze metal showing around it, giving a cloisonné effect. The Trajan lettering was in polished aluminium. The floor was lino, panelled in buff, blue and black.



The Buick stand. Pylon and corner-posts were cellulose lacquered in polished rich dark blue, certain portions being picked out in gold and emerald green, while the enriched panels and cornice (strip lit) were in shades of blue and brown.

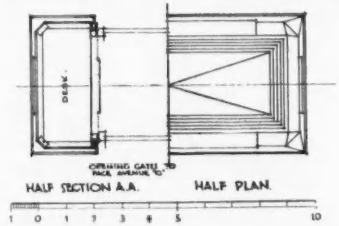


The Chevrolet stand provided an office, formed by enclosing the pylon with two pairs of gilding metal plymax gates.

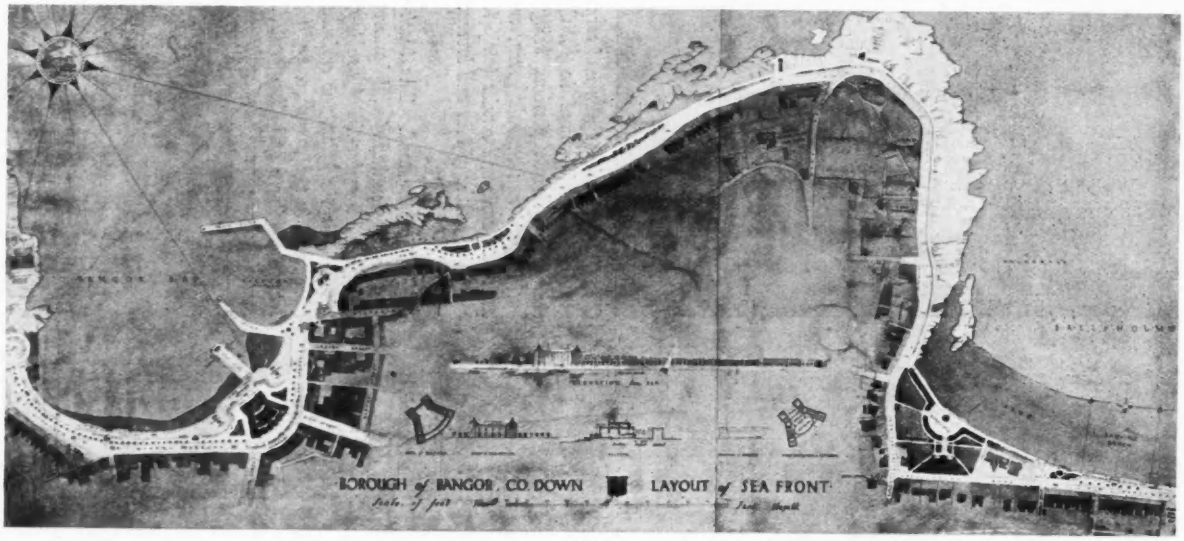


This stand and its fellow, which adjoined it, were rather square rectangles. The pylon occupied a central position, with posts at the four corners. The sub-floor of ply was laid out at the contractors' works and much of the lino applied beforehand.

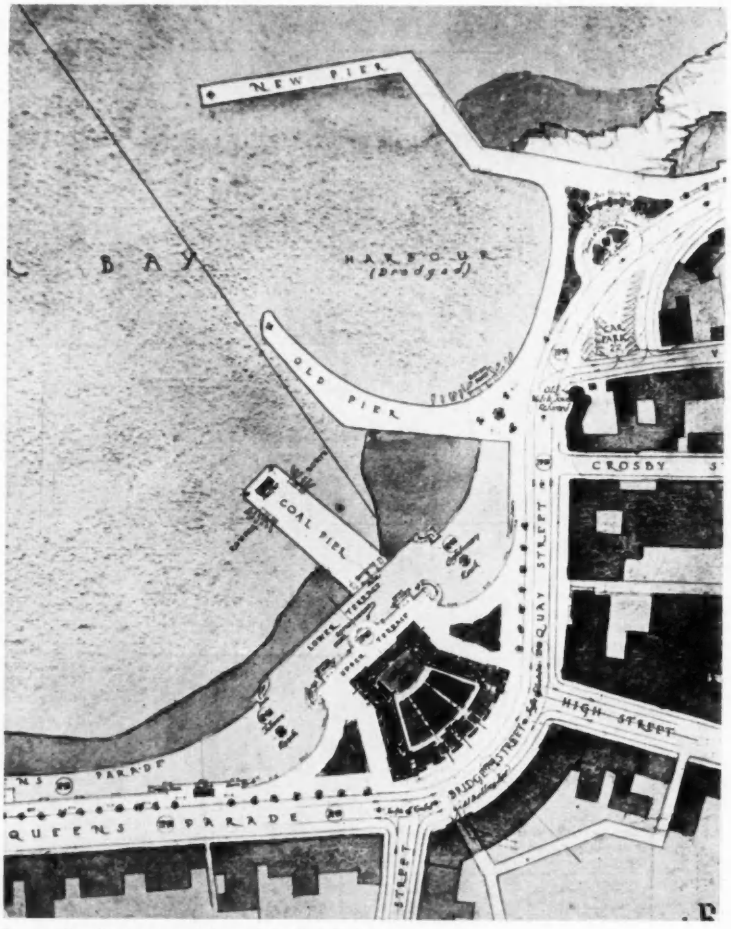
The Chevrolet stand. The black corner-posts and pylon had special hardwood light fittings with amber-tinted double-engraved glass. For the pylon, the enriched panels were toned in red, orange, and yellow, with orange architrave and silver grilles. Construction was generally as for the other stand illustrated, except that the top of the pylon was made of polished aluminium plymax, illuminated with amber-tinted strip lights.



THE BANGOR COMPETITION: WINNING DESIGN



The principal portion of the layout. The aim of the architects has been to retain the natural beauties of the foreshore and to provide carefully designed buildings and promenade layout.



Bangor Sea Front Competition: Winning Design.]

The improvements at Bangor Harbour include a concert hall and skating rink and a new quadrant. It is suggested that a block of commercial buildings, designed as a complement to the concert hall, should be built in the quadrant.

ON this and the facing page is illustrated the winning design in the competition, promoted by the Borough Council of Bangor, Co. Down, for the layout of the sea front. The assessor was Professor Patrick Abercrombie, and his awards are:—

First premium (£150), Alec. G. Jenson and F. Russell Cox, Leamington.

Second premium (£50), Stanley Atkinson, London, W.

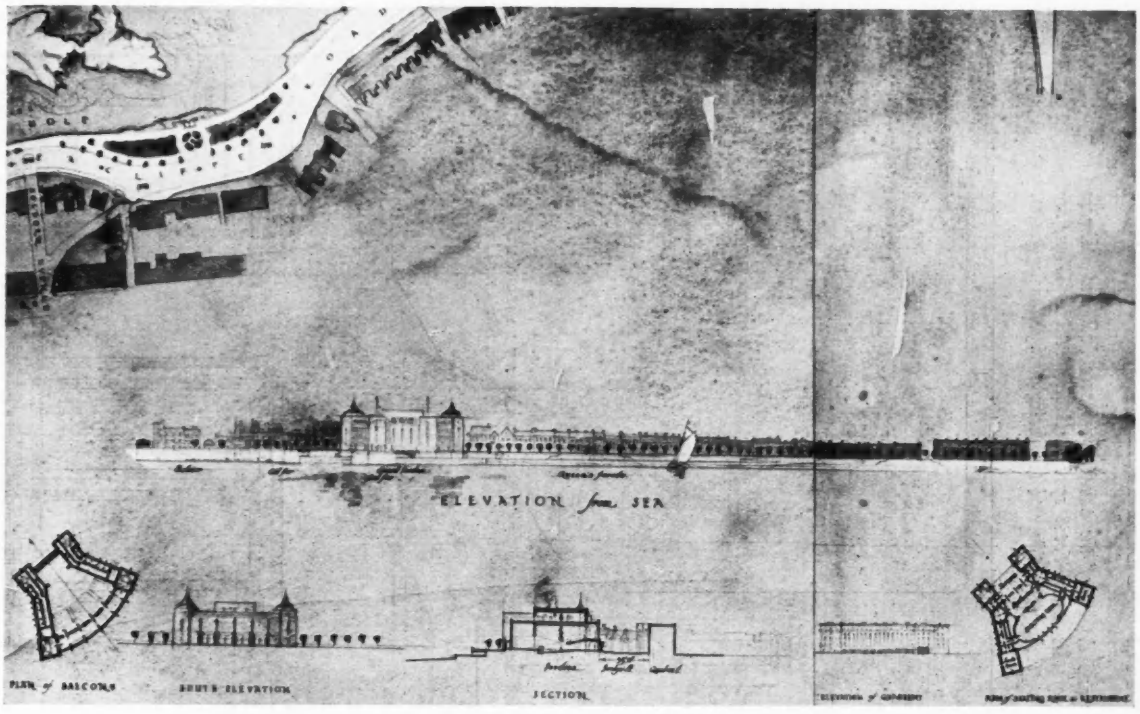
Honourable Mention: Herbert Collins, John G. Birkatt and C. M. Lock, Southampton; and C. W. Sharp, Ainsdale, Southport, Lancs.

In their report the authors of the winning design suggest that the existing residential areas of Bangor should be retained as such, and any possibility of industrial or amusement development in those areas prevented by zoning under the Town Planning Acts. The shopping and commercial area should likewise be zoned in the Main and High Street areas. A less conspicuous site inland should be found for the gasworks, off High Street, or, alternatively, the gasholder should be sunk below ground level.

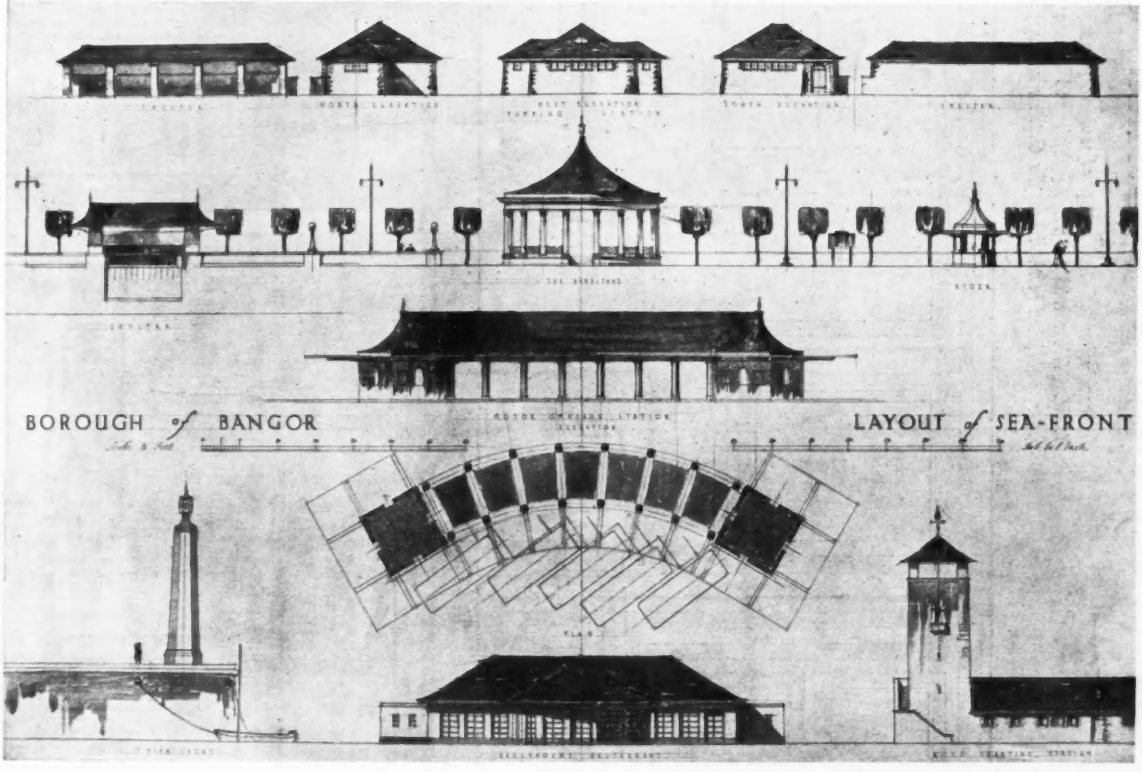
The competition for a new Grammar School at Ramsey, Isle of Man, has been adjudged by the assessor, Mr. T. Taliesin Rees, as follows:

First prize, £250. Messrs. Pearson, Son and Duffy, of Lancaster.

Second prize, £150. Messrs. Gray, Evans and Crossley, of Liverpool.



Elevations and plans of the improvements in the Queen's Parade district. A high level promenade is suggested with a sea walk ten feet below. Upon the lower promenade would be kiosks, rest shelters, etc.



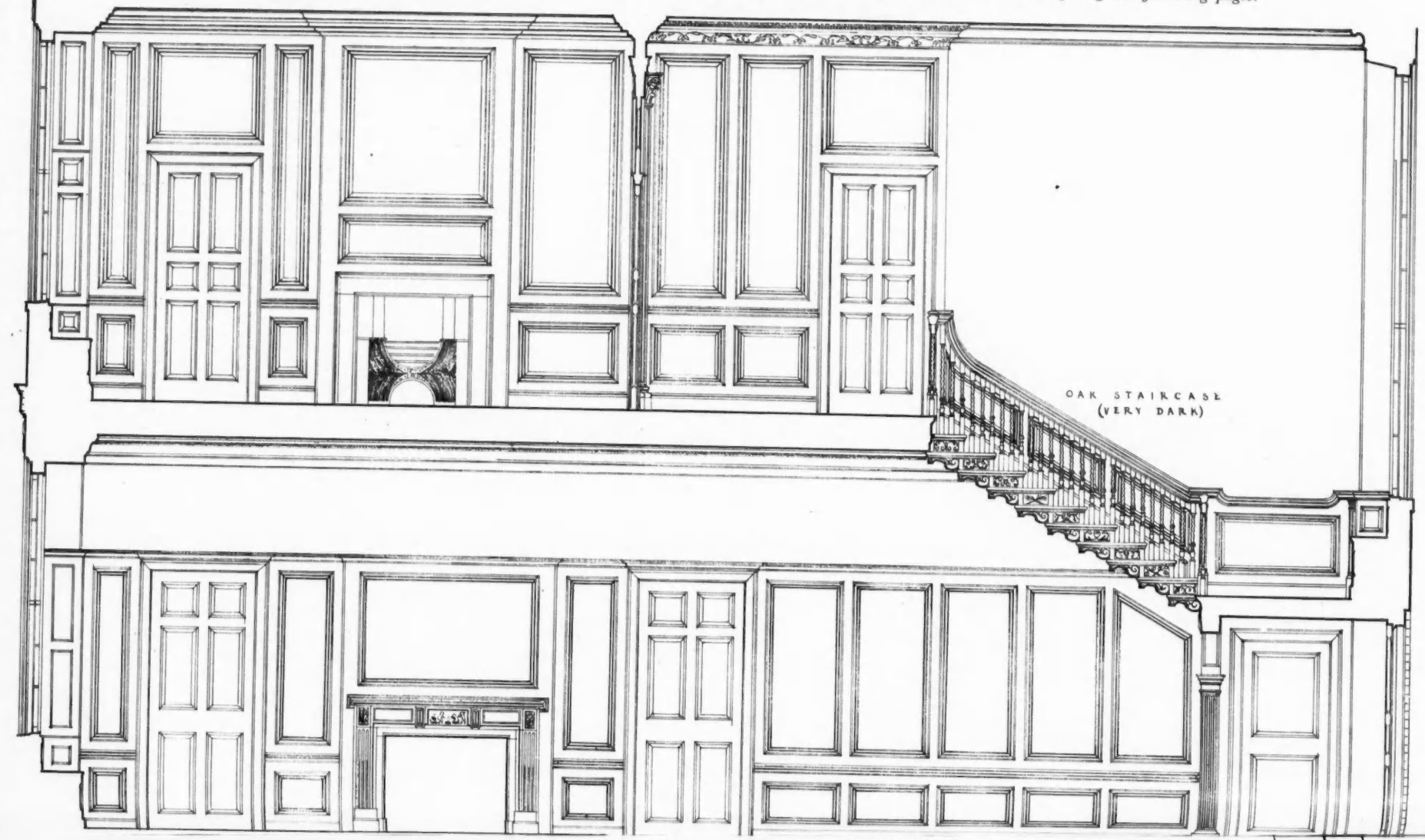
[*By Alec G. Jenson and F. Russell Cox.*

Plans and elevations of some of the proposed new buildings. These include kiosks, shelters, a motor-omnibus station, pier lights, and a starting station for the Royal Ulster Yacht Club. The complete scheme deals with two miles of coast line.

THE PALLANT HOUSE, CHICHESTER

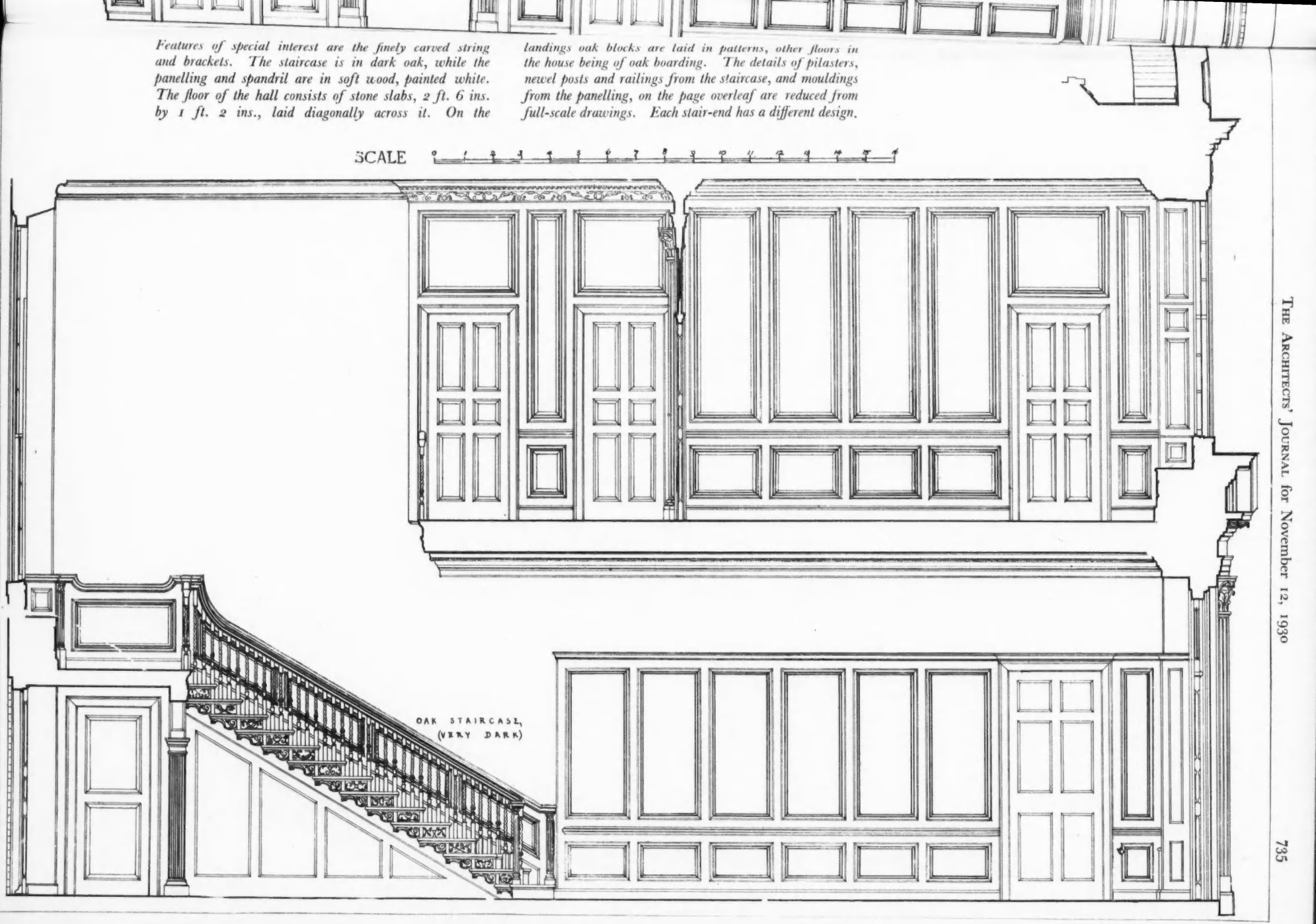
SECTIONS OF ENTRANCE HALL

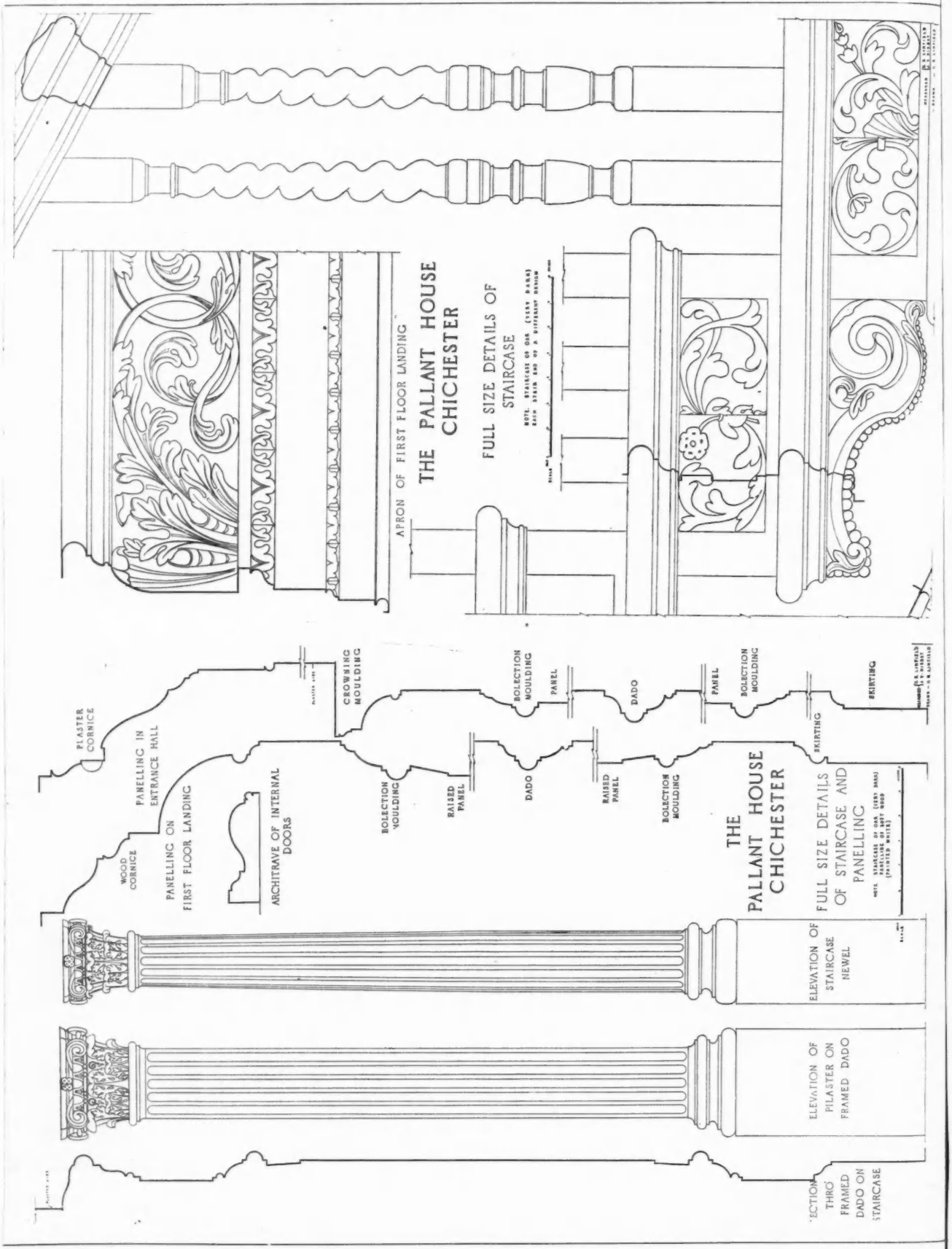
In conclusion of the series of subjects, measured by J. V. Nisbet and G. R. Linfield, and drawn by the latter, published in the issues for Oct. 22 and 29, sections and details of the panelled entrance hall and staircase of this house, dated 1711, and attributed to Wren, are reproduced on this and the facing and following pages.



Features of special interest are the finely carved string and brackets. The staircase is in dark oak, while the landings oak blocks are laid in patterns, other floors in the house being of oak boarding. The details of pilasters,

Features of special interest are the finely carved string and brackets. The staircase is in dark oak, while the panelling and spandril are in soft wood, painted white. The floor of the hall consists of stone slabs, 2 ft. 6 ins. by 1 ft. 2 ins., laid diagonally across it. On the landings oak blocks are laid in patterns, other floors in the house being of oak boarding. The details of pilasters, newel posts and railings from the staircase, and mouldings from the panelling, on the page overleaf are reduced from full-scale drawings. Each stair-end has a different design.




APRON OF FIRST FLOOR LANDING
THE PALLANT HOUSE CHICHESTER
FULL SIZE DETAILS OF STAIRCASE
PLASTER CORNICE
PANELLING IN ENTRANCE HALL
WOOD CORNICE
PANELLING ON FIRST FLOOR LANDING
ARCHITRAVE OF INTERNAL DOORS
CROWNING MOULDING
BOLECTION MOULDING
RAISED PANEL
DADO
PANEL
SKIRTING
THE PALLANT HOUSE CHICHESTER
FULL SIZE DETAILS OF STAIRCASE AND PANELLING
ELEVATION OF STAIRCASE NEWEL
ELEVATION OF PILASTER ON FRAMED DADO
SECTION THRO' FRAMED DADO ON STAIRCASE

THE SPECIFICATION WRITER

Daylight Illumination: The Lighting of Picture Galleries

By JOHN W. T. WALSH, M.A., D.SC.

A SPECIAL problem in natural lighting, and one of exceptional difficulty, is the design of a room intended for the exhibition of pictures, especially when—as in the case of all the national collections housed in London — every picture has to be covered with glass. It is well known—in fact, a matter of common experience—that polished glass acts as a mirror reflecting an image of whatever is in front of it, the brightness of this image being about one-tenth of the brightness of the original object. Now, in the case of a dark painting, the image of the spectator's face reflected by the glass may well be as bright as the surface of the painting itself. In the case of some of Rembrandt's portraits, for instance, the average reflection factor of the picture is about 4 per cent. If the reflection factor of the spectator's face, then, is about 50 per cent., he will see an image of his face which is quite as bright as the detail of the picture. It is small wonder, therefore, that it becomes quite impossible in these circumstances to obtain a proper view of the picture and that efforts have been made to avoid the difficulty by putting the spectator into darkness while still providing ample light for the illumination of the pictures.

Galleries have been designed with this object in view, notably by Mr. S. Hurst Seager, and the matter has received much attention from H.M. Office of Works in this country. At their request experiments were undertaken by the National Physical Laboratory even before the Illumination Research Committee came into being. After the formation of that body the work was continued under its auspices and an extensive series of experiments was undertaken. The whole investigation has been described in Technical Paper No. 6 of the Illumination Research Committee,[1] and the results may be briefly summarized as follows:

(1) The picture wall of a gallery may be considered to be adequately lighted when the illumination of the pictures is 3·5 per cent. or more of the illumination of a horizontal surface placed under an unobstructed hemisphere of sky.

(2) Reflections in the picture glass of the spectators themselves and of the pictures and frames on the opposite wall should be avoided.

In a two-sided gallery, such as those almost universal at present, the only method of preventing cross-reflection between opposite walls is to erect a screen for the whole length of the room. The most satisfactory form of gallery is, however, a one-sided room of special design such as that adopted for Room XIII. in the new wing of the National Gallery, Millbank (Tate Gallery). The general features of the design were prepared by the architects in consultation with H.M. Office of Works, and experiments were then made at the National Physical Laboratory to determine the most suitable dimensions for combining adequate illumination of the picture-wall with complete freedom from objectionable reflections.

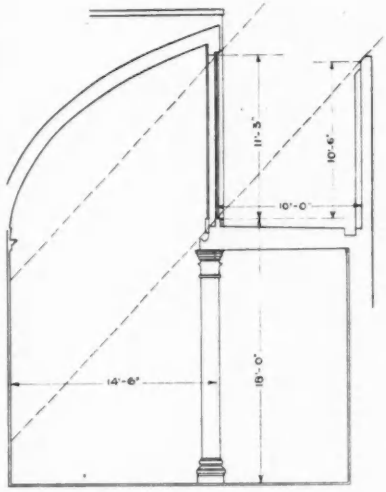


Figure eight. Section of arrangement adopted for special lighting of pictures at the National (Tate) Gallery, Millbank, London, S.W.

The form of section finally adopted was that shown in figure eight. The illumination of the picture-wall at the 4-ft. level was approximately equal to that specified above (daylight factor 3·5 per cent.), while the spectators, so long as they did not advance in front of the line of the pillars, did not receive an illumination of more than one-seventh that of the pictures opposite. It was to be expected, therefore, that the reflections would be almost negligible, and this expectation was fully justified by the results obtained in practice.

Even in the case of the darkest-toned pictures hung in this gallery, it is impossible to detect any reflections and the pictures appear, in fact, to be unglazed. To those interested in the subject of picture-gallery lighting, a visit to this room proves most interesting. The floor area necessary to provide a given area of picture-wall on this system is some 30 per cent. greater than in most galleries of ordinary design, since the room, although one-sided, is approximately two-thirds of the width of the ordinary double-sided gallery of similar construction.

THE PROBLEM OF FADING

Another problem connected with the lighting of picture galleries and museums is the prevention of fading both of the pigments used in painting and of the specimens exhibited, particularly certain kinds of butterflies and moths. This problem has formed the subject of some considerable study at different times, notably by Sir Sidney Harmer, but it is complicated by the fact that the power of the light to produce fading is much affected by other conditions, particularly air-humidity. An investigation is at present in progress to determine the extent to which the rate of fading can be reduced by the use of window materials which absorb the ultra-violet (i.e. the chemically and photographically most active) regions of the spectrum without noticeably altering the colour of the transmitted light.

"JUST ADEQUATE" DAYLIGHT

The figure generally used to express the value of the natural lighting at any point in a room is the "daylight factor"—i.e. the ratio of the illumination at that point to the simultaneous illumination of a horizontal surface exposed to a complete hemisphere of sky. For any given room it is clearly possible to draw contours of equal daylight factor and then, if it be assumed that a given daylight factor represents, for the average occupier, the limit of adequate lighting, the contour for that daylight factor will divide the room into two parts, one adequately and the other inadequately lighted. An attempt is now being made to determine whether or not such a division is actually feasible. A number of offices have been mapped out and contours of daylight factors have been plotted from actual measurements with an illuminometer. These offices have also been visited by a number of architects and other lighting experts competent to judge how much of each room could be regarded as just sufficiently well lighted for the performance of clerical work. It is the object of the investigation to determine whether a comparison of the two sets of observations will lead to a consistent value of the "just adequate" daylight factor.

ARTIFICIAL IMITATION OF DAYLIGHT

In some buildings it is necessary, even on fine days, to supplement the natural

[1] *The Natural Lighting of Picture Galleries.* Published by H.M. Stationery Office.

lighting in certain rooms by means of some form of artificial light. The use of ordinary light sources for this purpose has given rise to much objection and there seems to be a general prejudice against working in a "mixed" light, as it is usually described. The problem of finding the best means of supplementing an inadequate supply of daylight is therefore of great importance to the occupiers of such buildings. A series of experiments carried out at the National Physical Laboratory in 1925 and 1926 have some bearing on this matter. A small room was fitted up so that it could be illuminated by any one of the following four systems :

(i) Artificial daylight distributed as from a window.
(ii) Light of the colour of that given by tungsten filament vacuum lamps, similarly distributed.
(iii) Artificial daylight from a semi-indirect bowl fitting.
(iv) Light from a vacuum lamp in a semi-indirect bowl fitting.

To provide systems (i) and (ii) the window of the room was covered with diffusing material and illuminated artificially from the outside so as to give it a brightness of about one candle per square inch—i.e. about half the normal sky brightness on an ordinary dull day. This gave a very good imitation of the conditions prevailing when the room was illuminated by natural light from an overcast sky, except that there was no ground visible. A number of clerical staff worked for stated periods under these different systems and an attempt was made to determine which was generally considered the most comfortable and the easiest for working.

FUTURE WORK

Enough has been written, probably, to indicate the nature of the work which has been carried on and which is in progress in the field of research on natural lighting problems. There are yet many problems which remain to be attacked.

Among these may be mentioned the development of a simple portable instrument for the measurement of daylight factors. Much more information is needed, too, on the differences which exist between the daylight available in country districts and that which penetrates the comparatively murky atmosphere of some of our great cities and industrial centres. And glare, a subject of great importance in artificial lighting, is by no means an unknown factor in certain daylight problems.

(The above article concludes the series on this subject, begun and continued in the issues for October 15 and 29.)

Chromium-Plating

WITHIN the last four years chromium-plating has obtained a wide vogue; already it has largely replaced nickel-plating, bronzing, and even silver-plating. Its beauty, when skilfully executed, will be universally admitted, while the saving in labour and time resulting from its stainless properties constitutes a remarkable advantage. In this respect it is superior to the more expensive stainless steel, besides being free from the limitations of the latter for manufacturing purposes.

But there are still a great many faults in chromium-plated goods. These are usually, but not always, attributable to poor workmanship on the part of the plater. The purpose of this note is to suggest to the user points for scrutiny.

The manufacturer's first care should be to make sure that the metal to be plated is of good quality. A casting that is spongy, or has air bubbles in it, can never be made into a sound casting. Impurities in the metal may also affect the appearance after plating. Brass castings, for instance, frequently contain grit which cannot be eradicated.

Next, it is very important that the surface should be properly ground and then polished. Every irregularity, scratch, turning or grinding mark must be removed, otherwise the lustrous chromium-plated surface will emphasize these faults and the whole appearance of the article be spoilt.

Given good material, well polished, chromium-plating can be effectively completed, whether the base metal be iron, copper, nickel or an alloy.

On iron goods a heavy coat of copper must first be deposited in order to prevent rust. The thicker this coat is, the longer the iron will be kept from atmospheric influences. Chromium is *not* a rust-preventative, chromium being slightly porous. An extremely heavy (and therefore expensive) coat of nickel, which is not porous, may be substituted for copper, but the latter is to be recommended.

In the case of brass goods, it is most essential that a good coat of nickel be deposited before the article is chromium-plated. Three years ago this was not a recognized fact, and a great deal of trouble to purchasers of chromium-plated goods resulted. But in the light of present-day knowledge there is no excuse for any plater neglecting this important point, and it lies with the merchant to insist upon it. Apart from the matter of his own reputation, the inconsiderable extra charge may be more than outweighed by the putting right of goods complained of.

As an example, let us take the case of a lavatory waste flange, chromium-plated without a coat of nickel interposed. After a few months the chromium will begin to peel. The merchant will be put to the expense of having the flange removed and a new one fitted while the original one is replated—this time, it is to be hoped, by a reliable plater.

A little advice on the preservation of this beautiful finish will not be out of place. It must be borne in mind that, in comparison with nickel-plating, the initial cost is high. In fact, good chromium-plating cannot be produced at less than double the price of good nickel-plating, while inferior chromium-plating will cost much more than double the price of inferior nickel-plating. On the other hand, there is sound reason to believe that, given proper attention, chromium will last twice as long as its corresponding quality of nickel, thus halving installation charges over a period of years. Hence it is worth while to give it proper care.

Careless fitting may easily spoil a perfect article. We have all seen the results of plumber's grips used without due regard to the fine surface they come into contact with, or of a screwdriver allowed to slip across a finger-plate.

Again, when the fittings are finally installed, it does not do to neglect them. Chromium is certainly stainless. But dirt can settle upon it, and there are impurities in the air, such as acids, which will destroy chromium if allowed to remain upon it. The environs of a gasworks will almost certainly lead to the presence of sulphuric acid in the air. It is therefore incumbent upon the owner to see that the plating is kept clean. All that is necessary is to wipe the articles occasionally with a damp cloth, and particularly whenever any dullness is apparent. No metal-cleaning pastes or liquids should be used. They may contain acids deleterious to chromium. An abrasive powder or scourer will, of course, spoil the appearance of the plating. In this connection, it is noticeable that the plated fittings on cars give rise to no complaints, while door knockers, etc., are frequently complained of. The explanation is simple. In the one case, the owner sees that the parts are kept bright. In the other, months are allowed to elapse before attention.

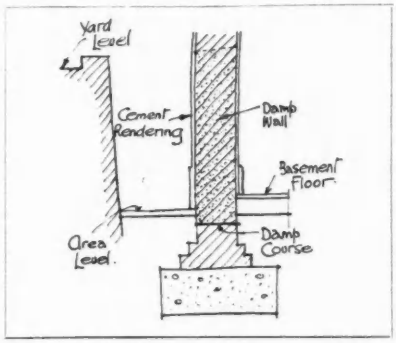
To summarize, the essentials are : (1) a good base metal; (2) good workmanship in the preparation of the articles before plating; (3) the use of a technically sound and reliable job, as opposed to one apparently cheap but unreliable; (4) careful handling of the completed work; (5) precautions in preservation.

QUESTIONS THAT ARISE

Damp Wall

J. E. K. writes : "*It is proposed to make habitable an old house which has been empty for a considerable period. The lower story is a semi-basement, the floor of which is 5 ft. below the general ground level. An area, 15 ins. wide, with a total length of approximately 120 ft., surrounds the house. The floor of the area is covered with tiles 2 ins. thick, well pointed with cement, and the area is well drained. The whole of the walls are rendered externally in cement, painted.*

"*Internally the walls, which are papered, are damp for a height of about 4 ft. above the floor. The dampness extends round all external walls and is fairly regular. I had the tiling removed in several places, and the walling cut away, and found that there is a damp course, but this is 1 in. below the bottom of the tiling in the places I opened up, the earth below being very wet. My client wishes to put this work in order with the minimum of expense. I am suggesting cutting out the plaster to all external walls from the floor level to a height of 2 ft. above the dampness, and rendering with cement with the addition of a waterproofing powder. Do you think a satisfactory job will be made in this manner without disturbing any outside work? The accompanying sketch illustrates a section of the wall.*"



A section of a damp wall (see accompanying query by "J. E. K.")

If, as your correspondent says, he requires to make the house in question habitable, he will certainly have to spend more on this work than cutting out and rendering externally as he suggests.

If the dampness penetrates from the area, above the damp course, here is where the protection is needed. I suggest that he should take up the area tiling as required, hack away a portion of the external cement rendering to wall, and well rake out the brick joints. Cover the wall 6 ins. below the existing horizontal damp course and to, say, 9 ins. above, with two courses of slates in cement and sand of equal proportions. His client will probably not see any value for his money for at least twelve months, during which time the wall will be drying out. When the paper is stripped from the walls the plaster will in all probability be found in a very decayed state, and if he wishes to make the lower floor habitable it looks as if it will be necessary to cut out this defective work, and make good in waterproof cement.

W. A. D.

Aluminium Powder

P. A. writes : "*What is your expert's opinion on the following two questions :* (a) *What percentage of aluminium bronze powder should I add to white lead paint to increase its opacity for use as an undercoating?* (b) *Is it a fact that some remarkable interior decorative effects can be obtained by using aluminium bronze powder, in conjunction with ordinary paint pigments and the varnish vehicle used for making up the aluminium paint*"?

In reply to your correspondent's first query, the addition of 5 per cent. of aluminium bronze powder to white lead, zinc oxide, lithopone and similar white paints will materially increase the opacity of the latter for use as undercoatings, and will at the same time make them more durable in positions which are exposed to strong sunlight.

The last-named virtue is due to the fact that the aluminium flakes tend to protect a large proportion of the oil vehicle against the destructive influence of the sunlight. For this same reason, aluminium paint itself is claimed to have an extra long "life" when used in exposed positions.

Regarding the second query, your correspondent is quite correct, in that aluminium bronze powder can be used as he suggests. A mixture of ten parts of red oxide with twenty parts of aluminium bronze powder and seventy parts of vehicle, gives an attractive rose tint. Five parts of brown oxide, fifteen parts of chrome yellow or fifteen parts of chrome green, each with twenty parts of aluminium bronze powder and the balance made up with vehicle, will give other shades of a similar nature. These paints are unique in appearance, since they combine the metallic lustre of the aluminium with the particular colour of the actual pigment employed.

C. H. B.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Town Planning Schemes

DURING a recent debate on unemployment, Mr. Lloyd George called attention to town planning, and said that they had at present eighty regional committees, about thirty of which had devised schemes which they were prepared to put into operation. Surely this was the time to do it and to give the workers some opportunity of living under healthy conditions. Could not the Prime Minister consent to the preliminary suggestion that a committee of expert town planners with representatives of the municipalities and Government departments should consider these schemes and decide which of them should be put into operation? If that were done there would be work for a very considerable number of people.

At question-time Sir K. Wood asked for the number of town-planning schemes finally approved and put into force since the beginning of June, 1929, and the number of preliminary statements of town-planning proposals approved since that date.

Mr. Greenwood replied that the numbers were four and forty-four respectively.

Expenditure on Educational Buildings

Captain Waterhouse asked the President of the Board of Education if he would state the amount of capital expenditure on buildings for elementary and secondary schools, respectively, for 1913; for each of the years 1924 to 1929; and for the last twelve months for which figures are available.

Sir Charles Trevelyan said that the figures were as follows :

CAPITAL EXPENDITURE OF LOCAL EDUCATION AUTHORITIES.

Financial Year.	Elementary Schools.	Secondary Schools.
Actual expenditure—	£	£
1912-13	2,290,000	844,000 (see note)
Proposals approved by the Board—		
1923-24	1,094,000	688,000
1924-25	2,468,000	1,698,000
1925-26	3,477,000	2,016,000
1926-27	3,322,000	1,974,000
1927-28	3,860,000	1,914,000
1928-29	4,299,000	1,855,000
1929-30	5,510,000	2,292,000
1930-31 (six months)	4,495,000	1,270,000

Note.—The figures for 1912-13 related to higher education generally. Separate particulars for secondary schools were not available.

Progress of the Bridges Schemes

In reply to Major Nathan, who asked if he would state the present position with regard to the Waterloo and Charing Cross Bridge schemes, Mr. Morrison, the Minister of Transport,

said that the committee appointed by the L.C.C. to advise them on the subject of a Charing Cross Bridge had not yet reported, and he understood that the question of the reconstruction of Waterloo Bridge was, in the meantime, in abeyance.

British and Foreign Kerbs

Mr. L. Smith asked the Minister of Transport whether, in view of his note to divisional road engineers in favour of the use of British kerb in road-making, he could state whether imports of Norwegian granite kerb were still coming into this country.

Mr. Morrison said he believed that Norwegian granite kerb was still imported. He understood that, owing to the large programme of roadworks now in hand, there was such a wide demand for British granite kerb that highway authorities, much to his disappointment, experienced great difficulty in obtaining their requirements from British quarry-owners.

Housing Shortage

Mr. Ramsbotham asked the Minister of Health whether the housing shortage was definitely at an end.

Mr. Greenwood said it was common knowledge that there was still a widespread shortage of working-class houses. He would be better able to judge its local incidence in presence of the results of the survey prescribed by section 25 of the Act of 1930 to be made by local authorities.

Housing Subsidies

Mr. Greenwood informed Sir K. Wood that the total amount paid in housing subsidies in England and Wales since 1918 was £91,614,488, of which £15,608,326 had been paid since June 30, 1929. The amount estimated to be expended during the current financial year was £11,855,000.

Mr. Greenwood informed Mr. Day that the number of houses of a rateable value not exceeding £78 (£105 in the Metropolitan Police District) completed during the year ended March 31, 1930 in England and Wales was 202,060, of which 5,718 were completed in the County of London or on estates of the London County Council outside the county boundary.

Housing (Rural Workers) Act, 1926

Mr. Adamson, the Secretary of State for Scotland, informed Mr. Scott that as at September 30, 1930—the latest date for which information was available—grants had been promised by local authorities in Scotland under the provisions of the Housing (Rural Workers) Act, 1926, amounting to £530,264 16s. 8d. Of this sum £295,239 4s. 4d. had been paid at that date.

Slum Clearance

Mr. Albery asked the Minister of Health whether he could now report any accelerated progress in slum clearance.

Mr. Greenwood said he could not, since time must obviously be allowed to local authorities to formulate their proposals under an Act which became law as recently as August last.

Asked by Sir K. Wood if he would state the number of buildings acquired by local authorities in connection with approved slum clearance schemes, Mr. Greenwood said that the number in England and Wales between March 31, 1930, and June 30, 1930, the latest date to which complete figures were at present available, was 463.

The Architects (Registration) Bill

Somewhat to the general surprise of members, the House of Commons on Friday, November 7, gave a second reading without a division to the Architects (Registration) Bill, the debate on the Rabbits Bill, which was first on the Order Paper, having lasted only a couple of hours, instead of the whole day, as had been expected. The Architects Bill will now be the second on the list of Bills to go to a Standing Committee, and its future prospects are favourable.

The Bill this year was in the hands of Lt.-Col. Moore, the Unionist member for Ayr Burghs, who moved the second reading in an able and conciliatory speech. He disarmed much of the criticism that the Bill might have encountered by stating frankly that the promoters were not asking for anything unreasonable. They wanted to be assured that when a man was called an architect he had the qualifications necessary to give efficient and useful service to those who employed him. If the House allowed the Bill to go to a Standing Committee, the promoters would be ready to consider any reasonable suggestion for its improvement. Lt.-Col. Moore also traced the history of the Bill in some detail, and explained that the promoters were the R.I.B.A., which had a membership of about 8,000. The Bill provided for the establishment and maintenance of a Register of Architects, to which would be admitted without examination all persons practising as *bona-fide* architects, all those who were under instruction, and those engaged as architects' assistants. The Bill allowed these persons five years in which to apply for admission to the register. Persons desiring to join at a later date would have to pass an examination; and an Architectural Examination Board, consisting of men of high knowledge and wide experience, would be set up. Clause 7 established a Discipline Committee, on which representatives of the Law Society and of the Ministry of Health would be co-opted. This committee would have the power to remove names from the register, with a right of appeal to the Law Courts. The Bill would protect the public and make the architectural profession safe, secure and dignified.

Mr. Ben Tillett, one of the Labour leaders, who seconded, knew of no profession which called for more organization that that of the architect. The profession that was not organized stood to lose a great deal through chaos and uncertainty, and if architects could command an authoritative body of opinion, nationally expressed, they would do a great deal to abolish "jerry-building." The architects of the country had the power to reorganize our housing system in such a way as to make it worth handing down to posterity as a lesson and an example.

The approval of the architects of Northern Ireland was voiced by Col. Sinclair, who said that a system of registration would have a beneficial effect both morally and materially on the profession, and would benefit the public as well.

Mr. Mills, the Labour member for Dartford, was doubtful of the effect which the Bill would have on young men who, working as plasterers, joiners and bricklayers, were giving their spare time to improving their capacity to serve their crafts.

Mr. Geoffrey Shakespeare, from the Liberal benches, pointed out that, if ever a Bill had been subject to the scrutiny of Parliamentary procedure and debate, it was this Bill. The principles of the Bill, he declared, were in accordance with the tendencies of modern life, and the House ought not to deny to the oldest and most honourable profession the right to raise its status, as other professions had done.

Mr. March, however, the Labour member for Poplar, said that, unless assurances of reasonable consideration were given to other associations outside the R.I.B.A., he would oppose the Bill.

Sir Martin Conway made a powerful speech in favour of the Bill, and repeated the assurance that the R.I.B.A. was ready to meet objections with the utmost willingness to satisfy legitimate criticism.

Mr. Short, the Parliamentary Secretary to the Home Office, then put the Government view. He said that they must all recognize that there was a wide divergence of opinion among architects as to the merits of the Bill. There was a large body of opinion, including the Incorporated Association of Architects and Surveyors —the second largest association, he thought, of architects—who were very much averse to the provisions of the Bill. It would, therefore, be well, if the Bill reached the Committee stage, that these facts should not be ignored, and that a real attempt should be made to secure agreement. While not going into the merits or demerits of the Bill,

he said they could all agree with it so far as it sought to establish a higher educational standard. Many people feared that the Bill would create another very close corporation. They were entitled to regard the matter from a different point of view from the case of doctors, dentists, or lawyers. They were dealing with creative art, and it would be unfortunate if art should be robbed of great artists because they were not registered. The Government intended to leave the Bill to a free vote of the House.

After a strong speech in opposition to the Bill from another Labour member, Mr. Broad, who declared that it was unnecessary, that it would bring about a close corporation and would maintain the profession for a certain class only, the Bill was read a second time. It was referred to a Standing Committee.

SOCIETIES AND INSTITUTIONS

PROPOSED PALACE OF JUSTICE, ATHENS

THE following resolution has been passed by the Council of the R.I.B.A.: "The Council of the R.I.B.A. share the apprehension of the Académie des Beaux-Arts at the proposal of the Greek Government to erect a Palace of Justice near the Acropolis and close to the Theatre of Dionysos. They join with the Académie des Beaux-Arts in hoping that the Greek Government will consider the danger of interference with these great monuments by placing a modern building in juxtaposition with them."

HANTS AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION

The annual general meeting of the Hants and Isle of Wight Architectural Association was held at the Castle, Winchester, under the chairmanship of the President, Mr. J. Arthur Smith, F.R.I.B.A.

The Hon. Secretary presented the balance sheet for the session 1929–30, which was adopted on the motion of the chairman.

The President, in his annual address, traced the history of the Registration Bill and rejected the idea that the campaign for this had been quite unsuccessful. The contrary was the fact. It was recognized from the first that to get the Bill passed would be a long business requiring years of patient persistence. In a little more than three years of campaigning, the Bill had (1) been given a second reading in the House of Commons; (2) received a favourable verdict from a Select Committee; (3) passed through all its stages in the House of Lords; (4) received a certain amount of Government support; (5) the interest opposed to it in the House of Commons had greatly weakened. He went on to urge that to secure the passage of the Bill it was important that they should strengthen their membership by bringing every reputable and well-qualified architect into their ranks.

Mr. Smith pointed out that the proposal for reopening the Licentiateship of the R.I.B.A. offered an entry to its ranks to many established architects who were non-members, and they should have no hesitation in thus enrolling themselves. He urged all members to see that assistants, pupils, and students were attached to a society allied to the R.I.B.A.

In dealing with the affairs of his own Association, the President reviewed the activities of the past year, including lectures, addresses, excursions, and meetings of an educational and social character. He stated that forty new members had been enrolled during the past year, bringing the total membership up to 250.

A vote of thanks to the President was proposed by Colonel R. F. Gutteridge and seconded by Mr. H. S. Sawyer.

LIVERPOOL ARCHITECTURAL SOCIETY

Reference to Sir Edwin Lutyens's design for the proposed Roman Catholic Cathedral, and criticism of various building developments in Liverpool, was made by Professor L. Patrick Abercrombie in his inaugural address as president of the Liverpool Architectural Society.

Professor Abercrombie said the greatest architectural event in recent years had been the scheme to build a new cathedral in Liverpool to the design of Sir Edwin Lutyens, but he hoped that Sir Edwin's design might be amended before the cathedral was actually built, and that Dr. Downey would not tie Sir Edwin down too much to his first ideas.

Professor Abercrombie suggested the issuing of a "Cautionary Guide to Liverpool," which, he thought, might shame Liverpool into taking more care of the more ordinary type of building in its midst. Nevertheless, he acknowledged that in addition to Liverpool's fine collection of old buildings and the cathedral, a large volume of good things was growing in their midst—churches, banks, shops, schools, houses, etc.—from all of which much of the art and practice of architecture could be learned.

It was announced that the H. W. Williams Scholarship, valued at £50, had been awarded to Mr. R. P. S. Hubbard. Mr. Frank H. Nittler was honourably mentioned.

A LECTURE ON ST. PAUL'S

Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch), a lecture on "The Work at St. Paul's Cathedral" was given at the Engineers' Institute, Park Place, Cardiff, recently, by Mr. E. J. Bolwell, Clerk of Works, St. Paul's Cathedral. Mr. J. E. Turner, J.P., presided.

Mr. Bolwell, with the aid of an excellent collection of lantern slides, specially taken for the purpose, described in detail the great scheme of work which had been undertaken during recent years with the object of restoring Sir Christopher Wren's masterpiece. He made quite clear to his audience the nature of the work in strengthening the piers with bars of stainless steel and cement, and also the extremely complicated and difficult task of making secure the dome supports by means of great rods and chains of the same non-corrosive metal.

A vote of thanks to the lecturer was proposed by Mr. H. Norman Edwards, of the South Wales Institute of Architects (Central Branch), and seconded by Mr. T. E. Gough (South Wales Branch, Institute of Builders).

ARCHITECTURAL ASSOCIATION OF IRELAND

Mr. Alfred E. Jones, M.R.I.A.I., in his presidential address to the Architectural Association of Ireland, suggested that one of the best ways of studying the history of architecture in detail was the measuring and sketching of old buildings. He dealt with the best methods of making surveys, particularly surveys of buildings of an antiquarian nature, and spoke of what had been done in Ireland in compiling a record of the architectural and antiquarian remains by means of measured drawings in the past, and to suggest what could be done in the future.

Referring to the National Monuments Act, 1930, passed into law by the Free State Government, which made provision for the protection and preservation of national monuments and archæological objects, he said it might include any building of historical, architectural, traditional, artistic or archæological interest. He suggested that the time was opportune for the Advisory Council set up by the Government to recommend the publication from time to time of a complete history of the country's ancient buildings and antiquities.

Mr. J. V. Downes proposed a vote of thanks to the president, which was seconded by Mr. T. J. Cullen.

STYLES IN ARCHITECTURE

An address on the care and protection of ancient buildings was given by Mr. A. R. Powys, Secretary of the S.P.A.B., at a luncheon of the Dorking Rotary Club. Mr. Powys said that a style of architecture which was admired in a beautiful building represented a

response to the circumstances of the age in which the building was erected. It was a true response to the senses of the men working at that time. It was not a copy of a past style of architecture, but a work in the pure style of architecture of the day the building was erected.

GOTHIC ARCHITECTURE

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts on Wednesday last, gave an illustrated comparative analysis of the Gothic architecture of Italy, pointing out the many distinctive features and describing, in detail, many of the churches.

LAW REPORT

RE-ASSIGNMENT WITHOUT ASSENT — QUESTION OF WAIVER

The Fulham and Hampstead Property Co., Ltd., v. *Pitt. King's Bench Divisional Court. Before Justices Swift and Acton*

THE point in this appeal was an award of £100 damages for breach of covenant not to assign the lease of a house at 99 Broadhurst Road, Hampstead.

The issue came before the Court on an appeal by the defendant, Mr. Percy Pitt, from a judgment of Judge Snagge, sitting at the Marylebone County Court, in favour of the plaintiffs in the action, the Fulham and Hampstead Property Co., Ltd., the owners of the house.

Mr. Hanbury Aggs, for the appellant, Mr. Pitt, said in 1925 the company assigned to his client a twenty-one years' lease of the premises at £160 per annum. In 1928 his client transferred the lease to a Mrs. Roberts, he having moved, and the company having refused its assent to the assignment. Mrs. Roberts, however, left the premises after six months' occupation, and the company then resumed possession and endeavoured to re-let at £225 per annum. Under the lease the company claimed from the appellant in respect of dilapidations. Ultimately, they sued for damages for breach of covenant on the assignment of the lease to Mrs. Roberts, and the jury awarded them £100 and judgment was entered against his client for the £100.

Counsel said his argument was that here the company had been guilty of waiver, both as regards re-entry and acceptance of rent from Mrs. Roberts, and that they were barred from maintaining their action.

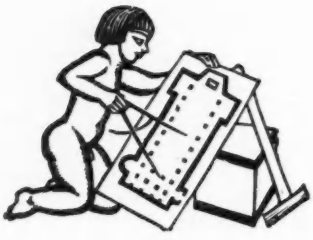
The Court, after long arguments, dismissed the appeal with costs, holding that the county court judge arrived at a right decision and that the sum awarded was a proper amount, and further that the company had not been guilty of waiver of any right they had to claim for damages resulting from the breach of covenant not to re-assign.

COMPETITIONS OPEN

November 17.—The Scarborough Education Committee invites architects to submit competitive designs for the Seamer Road New School. Assessor: Morris Thompson, F.R.I.B.A. Premiums: £100, £60, and £40, for designs placed first, second and third, respectively. Applications for conditions of the competition should be made to R. Underwood, Director of Education, Education Offices, Huntriss Road, Scarborough, not later than November 17. Deposit £1 1s. Latest date for submission of designs: January 17.

November 30.—The Guildford Cathedral Committee invites any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. The Committee, with the assistance of Mr. Walter Tapper, A.R.A., will examine the portfolios, and select a limited number of architects for the Final Competition. Each architect selected for the final competition will receive 500 guineas, whether his design is accepted or not. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office,

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THE ARCHITECTS' JOURNAL

Lloyds Bank Chambers, Guildford, not later than November 30.

December 6.—The Bermondsey B.C. invites competitive designs for a proposed new medical clinic in Tower Bridge Road, S.E. The assessors will comprise representatives of the L.C.C., Ministry of Health and the Bermondsey B.C. Premiums: £250, £150 and £50 for first, second and third place, respectively. Applications for the conditions of the competition and site plan should be made to E. Goff Clark, Town Clerk, Town Hall, Spa Road, Bermondsey, S.E.16, by December 6. Deposit £2. Latest date for submission of designs: January 10, 1931.

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. The competition has the full support of the Automobile Association, the Scapa Society and other bodies which have at heart the preservation of the countryside, as well as the principal motor-trade journals. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

February 1.—The Norwich Corporation invites architects practising in Norwich and in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb. 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, NOVEMBER 12

R.I.B.A., 9 Conduit Street, W.1. Exhibition of photographs of original drawings by Sir Christopher Wren. Until November 14.

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of Members' Holiday Sketches. Until November 27.

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "The Royal Society of Arts Competition of Industrial Designs." By Professor A. E. Richardson, F.S.A., F.R.I.B.A. Chairman: The Rt. Hon. Lord Stanmore, C.V.O. **8 p.m.**

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "The Influence of Modern Materials on Modern Architectural Treatment." By Joseph Emberton, A.R.I.B.A. (Tea 5.30 p.m.) **6 p.m.**

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Whitefriars Glass Works, Cecil Road, Wealdstone, Middlesex. **2.30 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: The Gothic Period in Central and Southern Italy." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Rembrandt and his Pupils." (Illustrated by magnified photographs from Continental Galleries.) By A. P. Laurie, D.SC. **4 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the College of Technology, Manchester. Paper by Oscar Faber, O.B.E., D.SC. **7 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Informal Meeting. "The Mechanical Characteristics of Clays, with Special Reference to the Construction of Engineering Works." By Harold Berridge, C.I.E., O.B.E., M.INST.C.E. Chairman: David Anderson, B.SC. **6 p.m.**

INSTITUTE OF FUEL, 53 Victoria Street, S.W.1. "Graphical Methods of Fuel Control." By James Cunningham. **6 p.m.**

SOANE MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Art and House Collection. Open Thursdays and Fridays in November. 10.30 a.m. to 4 p.m. **10.30 a.m.**

EXHIBITION OF MODELS OF OLD LONDON. At the Golden Cross Hotel, Strand, W.C.2. The models are the work of John B. Thorpe. **2.30 p.m.**

THURSDAY, NOVEMBER 13

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Science Standing Committee.

INSTITUTE OF METALS. At the Chamber of Commerce, New Street, Birmingham. Discussion on "Metals and Alloys of the Future" to be opened by Dr. W. H. Hatfield.

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "The Furniture and Decoration of Robert and James Adam." By Arthur T. Bolton, F.S.A., F.R.I.B.A. **7.30 p.m.**

AUCTIONEERS AND ESTATE AGENTS INSTITUTE. At the Queen's Hotel, Birmingham. "The Agricultural Holdings Act, 1923—Compensation for Disturbance under section 12." By Edgar Whittindale. **3 p.m.**

SOCIETY OF ANTIQUARIES, Burlington House, Piccadilly, W.1. "Excavations at Servia in Macedonia." By W. A. Heurtley. **8.30 p.m.**

BUILDERS' BENEVOLENT INSTITUTION. Annual Dinner to be held at the Hotel Victoria, W.C.2. **7 p.m.**

INSTITUTION OF WELDING ENGINEERS. At the Institution of Mechanical Engineers, Storey's Gate, St. James' Park, S.W.1. "Metal Surface Hardening." By A. E. Shorter, M.B.E., A.M.I.MECH.E. (Lantern Illustrations.) **7.45 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "A Comparison of English and Foreign Building Laws." By C. H. Cottew, M.INST.S E. **6.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Fifth of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Third of five public lectures on "Re-planning of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Modern Pigments: Their Proper Selection and Use." By A. P. Laurie, D.SC. **4 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre, "English Mediæval Painting." By W. G. Constable, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

FRIDAY, NOVEMBER 14

SOUTH-EASTERN SOCIETY OF ARCHITECTS. Brighton Chapter. Smoking Concert, to be held at Booth's Restaurant, East Street, Brighton. Chairman: John L. Denman, F.R.I.B.A.

TOWN PLANNING INSTITUTE, Caxton Hall, Caxton Street, Westminster, S.W.1. Presidential Address by F. W. Platt. **6 p.m.**

ILLUMINATING ENGINEERING SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. "Lighting of Offices and Public Buildings." By J. A. Macintyre. **6.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Stresses in Angle Sections." By F. C. Bridge. **6.30 p.m.**

CHADWICK LECTURES. At the R.I.B.A., 9 Conduit Street, W.1. "The Object and Methods of Sewage Treatment, particularly in Relation to Inland Towns and Isolated Institutions." By J. H. Coste. Chairman: Sir George Humphreys, K.B.E., M.INST.C.E. **8.15 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Painting Media: Oils, Varnishes and Tempera." By A. P. Laurie, D.SC. **4 p.m.**

SATURDAY, NOVEMBER 15

Sunrise, 7.16 a.m. Sunset, 4.12 p.m.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Church of St. Stephen, Walbrook, E.C.4. **2.30 p.m.**

HORNIMAN MUSEUM, Forest Hill, S.E.23. "The Lake Villages of Somerset." By H. St. George Gray, F.S.A. **3.30 p.m.**

MONDAY, NOVEMBER 17

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Executive Committee. 4 p.m. General Meeting. "Public Control of Buildings: The Position in 1930." By A. N. C. Shelley. 8 p.m. Also, Licentiates' Examination to qualify for Fellowship. Until November 21. **4 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Methods of Wall Painting." By A. P. Laurie, D.SC. **4 p.m.**

TUESDAY, NOVEMBER 18

ROYAL ACADEMY, Burlington House, W.1. "The Theory of Colour and its Application to Painting." By A. P. Laurie, D.SC. **4 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Ordinary Meeting. "The Lockaber Water Power Scheme." By William T. Halcrow, M.INST.C.E. **6 p.m.**

WEDNESDAY, NOVEMBER 19

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "Persian Painting." By Laurence Binyon, LL.D. Chairman: Sir Arnold Wilson, K.C.I.E., etc. **8 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: Bridges, Castles, Palaces." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Early Methods of Oil Painting." By A. P. Laurie, D.SC. **4 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Students' Meeting. Address by Arthur T. Black, STUD.INST.C.E. Chairman: Sir George W. Humphreys, K.B.E. **6.30 p.m.**

THURSDAY, NOVEMBER 20

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "The Progress of Furniture Craftsmanship from 1650 to 1700." By John C. Rogers, A.R.I.B.A. **7.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. At the Metropole Hotel, Leeds. "Concrete and Critics." By A. W. Legat, M.INST.C.E. **7 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Sixth of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Fourth of a series of five public lectures on "Re-plannings of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Alabaster Carvings." By W. L. Hildburgh, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 21

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Finance and House Committee. Intermediate Examination. Until November 27.

LONDON SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. "More Light on London." By Dr. C. W. Saleeby. (Illustrated by a film entitled "A School in the Sun.") Chairman: Sir Leonard Hill, F.R.S. **5 p.m.**

NATIONAL HOUSING AND TOWN PLANNING CONFERENCE. At Blackpool. Until November 24, inclusive.

INSTITUTION OF STRUCTURAL ENGINEERS. Western Counties Branch. At the Merchant Venturer Technical College, Unity Street, Bristol. "The Erection of Steelwork." By G. F. C. Caswell. **7.30 p.m.**

SATURDAY, NOVEMBER 22

Sunrise, 7.28 a.m. Sunset, 4.3 p.m.

TRADE NOTES

Messrs. Electrolux, Ltd., have recently received an order from Messrs. J. Lyons & Co., Ltd., for the supply of 700 ice cream conservators (gas operated). This is the second large order given by this catering firm to Messrs. Electrolux, Ltd. The first was an order for 500 machines, bringing the total up to 1,200. Besides supplying these conservators, the firm has installed Electrolux refrigerators, some electric, others gas operated, in many large blocks of flats, including Melbury Court, Kensington, 40 flats; Grosvenor House, Park Lane, 13 for service purposes; Eyre Court, N.W.8, 125 flats; and Berkeley Court, N.W.1, 128 flats.

*

Often has a person's equanimity been disturbed as to why the mark "Sheralak finished" is bestowed upon certain conduits and fittings. There is a general consensus of opinion that the trade mark is used to denote a super rust-proof job, but it is not generally known that it is applied to a material which has been sherardized and afterwards doped with a special varnish. The dope is transparent, durable and elastic, and is said to prevent the sherardized surface from picking up foreign matter and becoming discoloured. This point obviously is of great importance to the ultimate user of the conduit because it enables the manufacturers and the distributors to carry large stocks and give quick delivery. The outside surfaces of the conduits can easily be painted or colour-washed after erection; and it is claimed that the inside is thoroughly protected and dead smooth, and that all machined surfaces are rust-proofed. This special varnish is also said to give added protection to buried work where traces of acid in concrete or plaster are liable to cause trouble. Sherardizing has, of course, been in use for many years for the protection of iron and steel. It is the name of a process of applying zinc to the surface of articles made of iron or steel in order that they may not rust. The graduation of iron-zinc alloys formed on the surface of sherardized articles is claimed to comprise some which are not only highly resistant to corrosion, but sufficiently hard and continuous enough with the base metal to show remarkable powers of endurance. Finally, it is claimed that sherardized articles can be buff-polished and made to exhibit a high and attractive lustre.

*

Much interesting information concerning Todd burners is given in the new "Land Section" catalogue issued by Todd Oil Burners, Ltd. The firm's patent air atomizing oil burner is claimed to be ideal for firing cast-iron boilers varying in size from the smallest to 650,000 B.T.U.'s capacity. The burner is designed to incorporate the advantages of a pressure atomizing burner for efficiency, and has a vortex chamber from which the oil emanates through a circular orifice to the furnace in the form of a fine spray. The construction of the vortex chamber in the burner is such that the oil fuel is supplied through a central valve. Air is also admitted to the vortex chamber through tangential channels in order to give the oil the necessary rotation for the purpose of atomizing. The air employed for atomizing the oil is supplied at low pressure from an electrically-driven rotary air compressor, which, it is claimed, simultaneously provides a corresponding pressure to the oil supply tank, ensuring at all times a constant and uniform flow of air and oil to the burner. A specially designed furnace front is supplied which admits natural draught air to the oil spray for combustion. To this front the burner is attached. It is easily removed without disconnecting pipes, and enables any cleaning to be done without the assistance of a mechanic. Many other different types of Todd burners are illustrated and described, each designed for service under specific conditions and covering practically every type of industrial oil-burning installation.

*

The advertisement of the Cement Marketing Co., Ltd., in THE ARCHITECTS' JOURNAL for October 15 last stated that all the concrete piles for the Ford factory at Dagenham are of "Ferrocrete," the rapid-hardening Portland cement. The company now state that piles made with Ciment Fondu are also being driven.

*

Messrs. W. H. Gaze and Sons Ltd., The Gazeway, Kingston-on-Thames, have received an order from Cannes for one of their permanent miniature golf courses. This is believed to be the first one to be put down in France. The firm have also received an order for one of their portable sets from the Malay States.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors, specialists, and some of the sub-contractors for the buildings illustrated in this issue:

The Phœnix Theatre, Charing Cross Road, W.C.2 (pages 719-721). General contractors, Bovis, Ltd. Plaster modelling, W. J. B. Clark (supervisor, W. Carter; craftsmen, William Fuller, Ivor Golkovitch, J. McLaren Morgan and Louis J. Alexandre); ventilating engineer, J. K. Cooling; electrical engineers, Donald G. Tyrie and W. M. Pope; steelwork engineer, G. M. Hall. Sub-contractors: St. Mary's Wharf Cartage, Ltd., demolition and excavations; Moreland Hayne & Co., Ltd., steelwork; Clark and Fenn, Ltd., fibrous plaster and decoration; J. Jeffreys & Co., Ltd., heating and ventilating; H. H. Martyn, Ltd., and J. P. White and Sons, Ltd., joinery; Kinematograph Equipment Co., Ltd., seating, furnishing, upholstery, etc.; Grierson, Ltd., electric lighting; Parker, Winder and Achurch, Ltd., ironmongery; Independent Sprinklers, Ltd., sprinkler installation; Frank Burkitt, fire curtain, fire appliances, bio. shutters, etc.; British Challenge Glazing Co., mirrors, laylights, etc.; Fenning & Co., Ltd., marble; Carter & Co., Ltd., tiling; The Morris Singer Co., architectural metal work, etc.; F. A. Norris & Co., Ltd., iron staircases, etc.; Shinkfields, Ltd., cat-ladder, ironwork, etc.; J. W. Gray and Son, Ltd., lightning conductor; Leeds Fireclay Co., Ltd., terracotta and sanitary fittings; S. W. Farmer and Son, Ltd., canopy, Phœnix Street; Comyn, Ching & Co., Ltd., canopy, Charing Cross Road; British Vacuum Cleaner and Engineering Co., Ltd., vacuum-cleaning installation; Hitchins Laminated Doors, Ltd., doors; Campbell Bros., paint; Lapidosus, Ltd., cast stonework; Lift and Engineering, Ltd., counter-weighting; Dennison, Kett and Co., Ltd., revolving shutters; Self-Sentering Expanded Metal Co., Ltd., bracketing for decoration; Caxton Floors, Ltd., patent floors; Mellowes & Co., Ltd., metal casements.

Isle of Thorns Summer Camp (pages 722-725). Consulting engineer, Du Platt Taylor, M.I.C.E. London Construction Co., bath and lake; H. and E. Waters, buildings; Chuter and Tyler, huts; Collier and Catley drainage; Dean & Co., electrical work; Thresh Disinfector Co., disinfector; Comyn Ching & Co., Ltd., weathercock.

Wolverton Rectory, Ewhurst, Hants (page 726). General contractors, Wait of Newbury. Sub-contractors: Crittall Manufacturing Co., Ltd., casements; Warner's "Star" Tiles, roofing.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATION

31662. Robinson, P. Building constructions. October 22.

SPECIFICATION PUBLISHED

336567. Jaklin, H., and Frostig, O. Steel framing for walls, ceilings, roofs and the like.

ANNOUNCEMENTS

Mr. Henry A. Mackmin, F.S.I., chartered quantity surveyor, has removed his offices to 23 Golden Square, Regent Street, London, W.1. Telephone: Gerrard 7208.

The Association of Special Libraries and Information Bureaux recently formed a Panel of Expert Translators, with the object of providing translators with the necessary linguistic qualification and a knowledge of special technical subjects. Particulars of the scheme may be obtained from the A.S.L.I.B., 26 Bedford Square, W.C.1.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

The BERMONDSEY B.C. has in hand housing schemes costing £750,000.

The offices of *The Times* in Printing House Square, CITY, E.C., are to be rebuilt.

Plans passed by the HORNCHURCH U.D.C. : Twenty-six houses, Rockingham Avenue, for Messrs. Bellamy and Lemon; three houses, Hainault Road, for Mr. F. G. Smith; eighteen houses, St. George's Avenue, for Messrs. C. and G. Contractors, Ltd.; two houses, Haynes Road, for Messrs. E. A. Coryn and Son; nine houses, Park Lane, for the County of London Electrical Supply Co., Ltd.; forty-eight houses, Harwood Avenue, for Messrs. Wood and Wren; four houses, St. George's Avenue, for Mr. W. Jones; twenty houses, Boscombe Avenue, for Mr. S. J. Davies; fourteen houses, Cecil Avenue, for Messrs. Jay and Deverill; twelve houses, Victor Gardens, for Mr. G. Wood; four houses, Kinfauns Avenue, for Mr. E. A. Faux; twenty-five houses, Harwood Avenue, for Messrs. Smith and Sharpe; six houses, Whitehorn Gardens, and seventeen houses, Brookland Gardens, for Mr. B. G. Bratchell; two houses, New Road, South Hornchurch, for Messrs. Buckley and Son; eighteen houses, Maylands Way, for Mr. J. E. Neal; three houses, Bruce Avenue, for Mr. L. Lloyd; two houses, Hainault Road, for Mr. H. G. Mynott; ten houses, The Avenue, for Messrs. W. Belsher and Son; two houses, Hainault Road, for Messrs. A. E. Whichello and J. L. Bibby; four houses, Upminster Road, for Mr. A. E. Johnson.

Cadby Hall, KENSINGTON, W.14, the headquarters of Messrs. J. Lyons & Co., Ltd., is to be enlarged from plans prepared by Messrs. Holman and Goodrham.

The KINGSBURY R.D.C. has approved plans for the erection of eighteen houses at Oaktree Dell, subject to certain drainage alterations being carried out.

The Board of Education is to be asked to approve plans for alterations and additions at nine schools for the LEYTON Corporation, at a cost of £32,100, in connection with a reorganisation scheme.

The L.C.C. propose to purchase sites in London at a cost of £500,000 for new housing schemes which will provide accommodation for 50,000 people.

Plans passed by the STAINES U.D.C. : Six houses, Shepperton Road, Laleham, for Mr. F. J. Craswell; house, Bath Road, Colnbrook, for Mrs. Wyatt; house, Common Road, Laleham, for Mr. Dollery; two houses, Kingston Road, Staines, for Mr. A. W. Francis.

Twenty-two houses are to be erected on a site at Higham Hill, WALTHAMSTOW.

EASTERN COUNTIES

Plans passed by the CHELMSFORD T.C. : Rebuilding of house in Galleywood Road, for Mr. G. J. Bragg; two houses, Galleywood Road, for Mr. W. J. Wade; new shop-warehouse at the corner of Moulsham Street and Barrack Square, for the Chelmsford Co-operative Society; six pairs of houses, Longstomps Avenue, for Mr. R. H. Currie; house in Galleywood Road, for Mr. Robert Wenley.

SOUTHERN COUNTIES

Messrs. Seal and Hardy, L. & A.R.I.B.A., have prepared plans for a large garage, showrooms and offices on a site in Westover Road, BOURNEMOUTH.

The EASTBOURNE T.C. has decided to proceed with a motor-coach station scheme in the centre of the town, at a cost of £10,000.

The GUILDFORD Corporation is to buy, under compulsory powers, a farm, comprising fifty-nine acres of land, for housing purposes.

At a meeting of the PORTSMOUTH City Council, it was stated that the Health and Housing Committee was preparing schemes for the erection of 119 houses at Portsea, which will complete the Council's proposal to build 500 houses for the accommodation of persons removed from sanitary areas. The Housing Committee is also preparing a five-years' programme under the provisions of the 1930 Housing Act.

At a meeting of the TUNBRIDGE WELLS T.C. it was decided to support the recommendations of the General Purposes Committee for the erection of municipal buildings, at a cost of approximately £172,000. The buildings it has been decided to proceed with consist of : Municipal offices, £97,000; police station, clinics, etc., £31,550; fire station, £8,000; mortuary, weights and measures and yard block, including site work, etc., £15,630.

MIDLAND COUNTIES

At a meeting of the Governors of Derby School a proposal that the DERBY Education Committee be requested to take the necessary steps towards acquiring a new site and erecting entirely new buildings for the school was passed. The estimated cost of a new school for 450 pupils (apart from the cost of site and levelling of playing-fields, or of the provision of a school chapel) would be from £50,000 to £60,000.

The FINEDON U.D.C. has decided to apply to the Ministry of Health for sanction to erect fifty more houses on the Thrapston road site.

Plans passed by the HINCKLEY U.D.C. : Two houses, Edward Street, for Mr. W. Foxon; three houses, Forest Road, for Messrs. Greaves Bros. ; a layout of eleven houses, Strathmore Road, for Mr. R. H. Simmonds; additions to factory, Hawley Road, for Messrs. Huckerby and Growdridge; alterations and additions to factory, Druid Street, for W. Moore and Osborne, Ltd.

Plans are in hand for the erection of forty-eight more houses on the Shelthorpe Corporation Estate at LOUGHBOROUGH.

The NUNEATON T.C. has received from the Ministry of Health sanction to borrow £7,939 for the erection of a new school clinic and maternity and child-welfare centre in Colton Road, Nuneaton.

Plans are being prepared by Mr. Edward Heazell for the proposed St. Martin's Church, SHERWOOD. It will accommodate 700 persons, and the estimated cost is £21,000.

SOUTH-WESTERN COUNTIES

A church, with accommodation for 300 persons, is to be erected at Primrose Hill, LYDNEY, from the designs of Mr. Ellery Anderson.

NORTHERN COUNTIES

The Bakewell U.D.C. has received the sanction of the Ministry of Health for a loan of £5,000 for the erection of twelve houses in Field Road, BAKEWELL.

Plans passed by the BLACKPOOL T.C. : Two houses, Oregon Avenue, for Mr. R. Smith; house, Rawcliffe Street, for the St. Peter's Church Trustees; twelve houses, Antrim Road, for Messrs. C. and C. Hilton; house, St. Anne's Road, for Mr. J. Stanworth; four houses, Westmorland Avenue, for Mr. F. Francis; two houses, Dalewood Avenue, for Mr. T. Mercer; house, Park Drive, for Messrs. Staunton & Co.; two houses and two bungalows, Sandhurst Avenue, for Mr. J. Ridyard; eight houses, Orkney Road, for Messrs. J. and W. Ormerod; two houses, Harrington Avenue, for Mr. J. Midgeley; four houses, Sandhills Avenue, for Mr. G. Woodhead; four houses, Sunnybank Avenue, for Messrs. R. Brown and Sons; seven houses, Appleby Road, for Messrs. J. Fielding and Sons; two bungalows, Sandhurst Avenue, for Mr. J. Marsden; garage and flats, Springfield Road, for Mr. F. Lee; warehouse, Caunce Street (rear), for Messrs. J. and R. Fenton, Ltd.

The BLYTH T.C. is recommended by the Education Committee to forward to the Board of Education estimates, amounting to £42,780, for new schools and alterations to others.

The BURY T.C. General Purposes Committee has considered plans for proposed alterations to the town hall to accommodate the various departments of the Corporation. The committee has decided that the scheme of alteration be limited to the provision of a council chamber, mayor's parlour, committee rooms, and the housing of the town clerk's, borough treasurer's and borough engineer's departments, at an estimated cost of £24,000. The approximate cost of the larger scheme would have been £60,000.

Mr. S. W. B. Jack, architect, has prepared plans for a new church hall for Holy Trinity Church, CARLISLE.

Sanction has been received by CHESTER-LE-STREET U.D.C. to borrow £20,400 for the erection of fifty houses, and the Ministry of Health has recommended the Public Works Loan Board to advance the money.

The DONCASTER Corporation has decided to proceed with plans for a municipal aerodrome, at a cost of £120,000.

A scheme is on foot at HEYWOOD to construct a bridge over the River Roach and to continue William Street to Bury Road. The cost of the scheme is estimated at about £27,000.

Schemes, including the provision of new swimming baths, houses, and roads, to cost £400,000, have been submitted to the HULL Corporation Finance Committee.

At a meeting of the LINDSEY C.C. approval was given to financial proposals involving an expenditure of £420,000. This amount includes £200,000 on a programme of special works in substitution of £100,000 previously approved; £26,000 for the Ashby Senior Girls' School; £11,100 for a Council school at Scotter; £7,250 for a school at Bottesford; and various other amounts in connection with road widenings and bridges improvements.

The MANCHESTER T.C. has received sanction to borrow £7,750 for the provision of additional firemen's quarters at the Ash and New Streets Stations.

The ROTHERHAM R.D.C. is to apply to the Ministry of Health for sanction to build a further 200 houses.

The site of the SOUTHPORT Opera House has been purchased by Mr. George Rose, of Southport, and a new theatre is to be built on the site to accommodate 2,000 persons. The estimated cost is £150,000.

The Housing Committee of the SUNDERLAND Corporation are negotiating for the purchase of two areas of land at Southwick for building purposes, one of them large enough for the erection of eighty-five houses, and also of land in Silksworth Lane. At the meeting of the committee this month, plans will be submitted for 212 new houses to be built on the Ford estate.

SCOTLAND

The erection or reconstruction of twenty-six piers at an estimated cost of more than £117,800 has been recommended to the interdepartmental committee of the ARGYLL C.C.

The AYRSHIRE C.C. has approved a scheme for the erection of more than 300 houses under the Housing (Scotland) Act, 1930.

Approval has been obtained for the erection of a church at St. Ninian's, BOWHILL, Fife.

The local authorities of Fife, Stirling and Clackmannan, with the burghs of Alloa, Dunfermline and Falkirk, have agreed to proceed with the promotion of a Provisional Order for the construction of a road bridge over the Forth at KINCARDINE. The estimated cost is £400,000.

A housing scheme, involving the demolition of eighty-three houses and the building of sixty new ones, has been adopted by the PETERHEAD T.C.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_1	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^2	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle ..	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract ..	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A	Worksop ..	Yorkshire	1 5½	1 1½
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	*1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour ;* NAVVY, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 10 0
Pit gravel, per yd.	0 15 0
Pit sand, per yd.	0 12 6
Washed sand, per yd.	0 13 0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2 8 0
Lias lime, per ton	2 0 0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day :

Cart and horse	£1 3 0	*Trailer*	£0 15 0
3-ton motor lorry	3 15 0	*Steam roller*	4 5 0
Steam lorry, 5-ton	4 0 0	*Water cart*	1 5 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.
RETURN, fill, and ram, ordinary earth, per yd. £0 1 6
SPREAD and level, including wheeling, per yd. 0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6
TRIMMING earth to slopes, per yd. sup. 0 0 6
HACKING up old grano. or similar paving, per yd. sup. 0 1 3
PLANKING to excavations, per ft. sup. 0 0 5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.
IF left in, add to above prices, per ft. cube 0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1
DO. 6 in. thick, per yd. sup. . . . 0 2 10
PUDDLING, per yd. cube 1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6
DO. 6-2-1, per yd. cube 1 12 6
DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.
LIAS-LIME CONCRETE, per yd. cube . £1 14 0
BREEZE CONCRETE, per yd. cube . . 1 7 0
DO. in lintels, etc., per ft. cube . . 0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9
FINE concrete benching to bottom of manholes, per ft. cube 0 3 0
FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* BRICKLAYER, 1s. 8½d. *per hour ;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0 0 10
DO. *6 in., per ft.*	0 1 3
DO. *9 in., per ft.*	0 2 3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 5 6
DO. *6 in., per yd.*	0 8 0
Portland cement and sand, see " Excavator " above.	
Leadwool, per cwt.	£2 0 0
Gaskin, per lb.	0 0 4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3
Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4 5 6
Flettons, per M.	2 12 6
Midhurst white facing bricks, per M.	5 0 0
Multi-coloured facings, per M.	7 7 9
Best red facings, per M.	7 7 9
Rubbers, 9¼ in., per M.	12 0 6
Staffordshire blue, per M.	9 5 0
Firebricks, 2½ in., per M.	9 5 0
Glazed salt, white, and ivory stretchers, per M.	21 10 0
DO. *headers, per M.*	20 10 0
Colours, extra, per M.	5 10 0
Seconds, less, per M.	1 0 0

Cement and sand, see " Excavator " above.

Lime, grey stone, per ton	£2 11 6
Mixed lime mortar, per yd.	1 6 0
Dampcourse, in rolls of 4½ in., per roll	0 2 6
DO. *9 in., per roll*	0 4 9
DO. *14 in., per roll*	0 7 6
DO. *18 in., per roll*	0 9 6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30 0 0
DO. in cement do., per rod	32 10 0
DO. in stocks, add 25 per cent. per rod.	
DO. in blues, add 100 per cent. per rod.	
DO. circular on plan, add 12½ per cent. per rod.	
DO. in backing to masonry, add 12½ per cent. per rod.	
DO. in raising on old walls, etc., add 12½ per cent. per rod.	
DO. in underpinning, add 20 per cent. per rod.	
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup. .	£0 1 0
BEDDING plates in cement mortar, per ft. run	0 0 3
BEDDING window or door frames, per ft. run	0 0 3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0 0 2
CUTTING do. in old walls in cement, per ft. run	0 0 4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0 0 7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0 3 6
DO. 14 ft. by 9 in. do., per ft. run .	0 6 0
FLAUNCHING chimney pots, each .	0 2 0
CUTTING and pinning ends of timbers, etc., in cement	0 1 0
FACINGS, fair, per ft. sup. extra .	0 0 3
DO. picked stocks, per ft. sup. extra	0 0 7
DO. red rubbers, gauged and set in putty, per ft. sup. extra . .	0 4 9
DO. in salt white or ivory glazed, per ft. sup. extra	0 5 6
TUCK pointing, per ft. sup. extra .	0 0 10
WEATHER pointing, do. do. . .	0 0 3
TILE creasing with cement fillet each side, per ft. run	0 0 6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0 5 0
DO. 1½ in., per yd. sup. . . .	0 6 0
DO. 2 in., per yd. sup. . . .	0 7 0
If coloured with red oxide, per yd. sup.	0 1 0
If finished with carborundum, per yd. sup.	0 0 6
If in small quantities, in finishing to steps, etc., per ft. sup. . .	0 1 4
Jointing new grano. paving to old, per ft. run	0 0 4
Extra for dishing grano. or cement paving around gullies, each . .	0 1 6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0 0 7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0 8 0
DO. vertical, per yd. sup. . . .	0 11 0
SLATE DAMP COURSE, per ft. sup. .	0 0 10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. . .	0 8 6
DO. SKIRTING, 6 in.	0 0 11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. . .	0 5 3
DO. DO. 3 in.	0 6 6
BREEZE fixing bricks, extra for each .	0 0 3

MASON

MASON, 1s. 8½d. *per hour ;* DO. *fixer,* 1s. 9½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone :	
Whitbed, per ft. cube	£0 4 6
Basebed, per ft. cube	0 4 9
Bath stone, per ft. cube	0 3 0
Usual trade extras for large blocks.	
York paving, av. 2½ in., per yd. super	0 11 0
York templates, sawn, per ft. cube	0 7 6
Slate shelves, rubbed, 1 in., per ft. sup.	0 2 6
Cement and sand, see " Excavator," etc., above.	

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.
PLAIN face Portland basis, per ft. sup. £0 2 8
DO. circular, per ft. sup. . . . 0 4 0
SUNK FACE, per ft. sup. . . . 0 3 9
DO. circular, per ft. sup. . . . 0 4 10
JOINTS, arch, per ft. sup. . . . 0 2 6
DO. sunk, per ft. sup. . . . 0 2 7
DO. DO. circular, per ft. sup. . . 0 4 6
CIRCULAR-CIRCULAR work, per ft. sup. 1 2 0
PLAIN MOULDING, straight, per inch of girth, per ft. run . . . 0 1 1
DO. circular, do., per ft. run . . 0 1 4
HALF SAWING, per ft. sup. . . 0 1 0
Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.
SETTING 1 in. slate shelving in cement, per ft. sup. £0 0 6
RUBBED round nosing to do., per ft. lin. £0 0 6
YORK STEPS, rubbed T. & R., ft. cub. fixed 1 7 6
YORK SILLS, W. & T., ft. cub. fixed . 1 10 0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup. 0 1 3
DO. 2½ in. thick, per ft. sup. . . 0 1 6

SLATER AND TILER

SLATER 1s. 8½d. *per hour ;* TILER, 1s. 8½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200 :

Portmadoc Ladies	£14 0 0
Countess	23 0 0
Duchess	32 10 0

Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms, per ton	8 3 9
Grey-green do., per ton	7 3 9
Green peggies, 12 in. to 8 in. long, per ton	5 13 9
In 4-ton truck loads, delivered Nine Elms station.	
Clips, lead, per lb.	£0 0 6
Clips, copper, per lb.	0 2 0
Nails, compo, per cwt.	1 6 0
Nails, copper, per lb.	0 2 2
Cement and sand, see " Excavator," etc., above.	
Hand-made tiles, per M.	£5 18 0
Machine-made tiles, per M.	5 8 0
Westmorland slates, large, per ton	9 0 0
DO. *Peggies, per ton*	7 5 0

SLATING, 3 in. lap, compo nails, Portmadoc or equal :

Ladies, per square	£4 0 0
Countess, per square	4 5 0
Duchess, per square	4 10 0

WESTMORLAND, in diminishing courses, per square 6 5 0
CORNISH DO., per square 6 3 6
Add, if vertical, per square approx. 0 13 6
Add, if with copper nails, per square approx. 0 2 6
Double course at eaves, per ft. approx. 0 1 0
SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	*Med. Green*
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms	6 7 0	
Grey-green do.	5 9 0	
Green peggies, 12 in. to 8 in. long	4 13 6	

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6
DO., machine-made do., per square . 3 7 6
Vertical Tiling, including pointing, add 18s. 0d. per square.
FIXING lead soakers, per dozen . . £0 0 10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square . . . 0 10 0
LABOUR only in laying slates, but including nails, per square . . . 1 0 0
See " Sundries " for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour ;* JOINER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds) :	
7 × 3, per std.	£22 0 0
11 × 4, per std.	30 0 0
Memel or Equal. Slightly less than foregoing.	
Flooring, P.E., 1 in., per sq.	£1 4 6
DO., *T. and G., 1 in., per sq.*	1 4 6
Planed boards, 1 in. × 11 in., per std.	30 0 0
Wainscot oak, per ft. sup. of 1 in.	0 1 6
Mahogany, Honduras, per ft. sup. of 1in.	0 1 4
DO., *Cuba, per ft. sup. of 1 in.*	0 2 6
DO., *African, per ft. sup.*	0 1 3
Teak, per ft. sup. of 1 in.	0 1 2
DO., *ft. cube*	0 14 0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube . . 0 4 6
DO. framed in floors, roofs, etc., per ft. cube 0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube . . . 0 8 6
PITCH PINE, add 33⅓ per cent.
FIXING only boarding in floors, roofs, etc., per sq. 0 13 6
SARKING FELT laid, 1-ply, per yd. . 0 1 6
DO., 3-ply, per yd. 0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq. . 2 0 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run . 0 0 4½
DO. 9 in. wide and over, per ft. sup. . 0 1 2

[continued overleaf

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
To DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	1	8
DO. ⅔ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1½ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅔ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ⅔ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ⅛ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *½ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.
The measured work price is on the same basis . . . per ft. sup. £0 0 2½

FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ⅜ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



APSIDAL END TO ASSEMBLY HALL AT KINGSLEY HALL, BOW, E.3.
Designed by C. COWLES-VOYSEY

THE Assembly Hall at this social settlement at Bow is a room which of necessity has to serve many purposes, and the fact that on occasion it would be necessary to hold divine service in it led the architect to import traditional ecclesiastical elements into the design for the end of the room, and carry this feeling into the details. At the same time he was wishful to preserve, elsewhere, something of the secular atmosphere that would be appropriate when the room was put to other uses.

Thus, the grille under the central semi-circular-headed metal window masks a radiator and, with its shelf, forms a small Holy Table.

The whole of the ceiling of this apse is finished in acoustic plaster, and the panelling itself contributes to the acoustic properties of the hall as a whole.

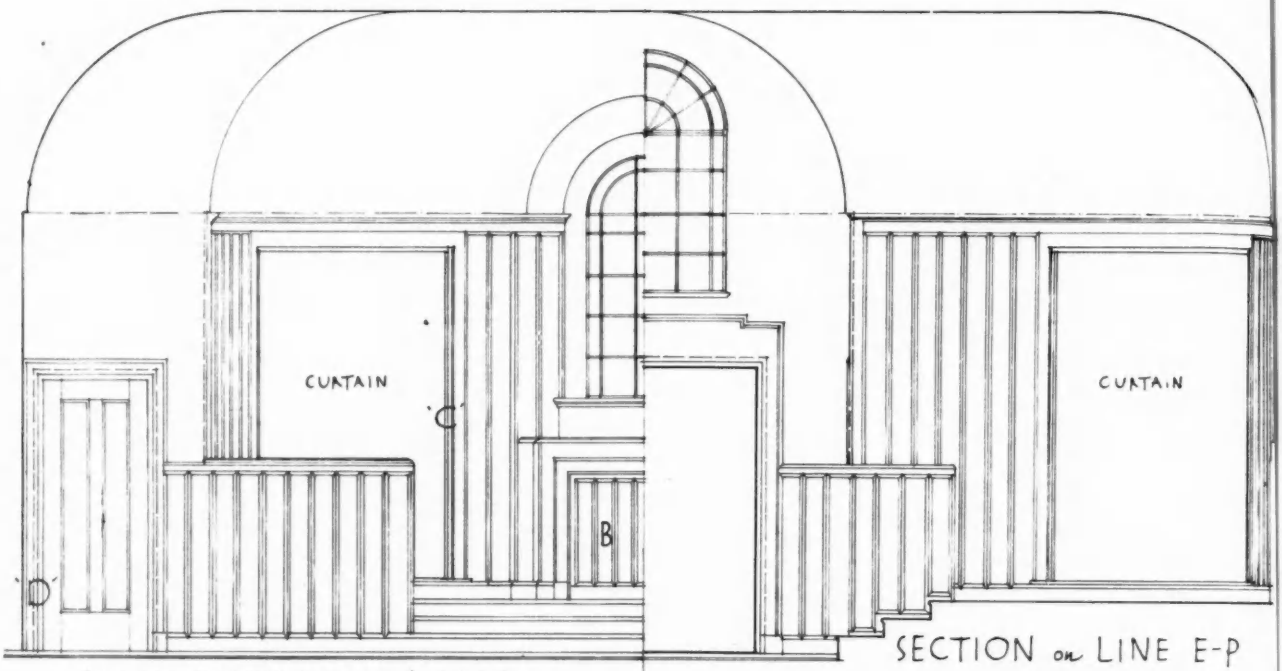
Reference to the drawings reproduced on the next page will show that the right-hand of the pair of curtains conceals a shallow recess to balance the opening on the left. These drawings give details of the whole of the joinery except the reading-desks flanking the opening, and it is proposed to add these in a later issue.

General photographs and drawings, with a description of Kingsley Hall, appeared in THE ARCHITECTS' JOURNAL *dated July 16 last, while the issue for October 22 contained scale details of the external chimney-fountain on the roof*

The drawings overleaf may be read with architects' ordinary scales ($\frac{1}{4}$"; and 6" = 1 ft.

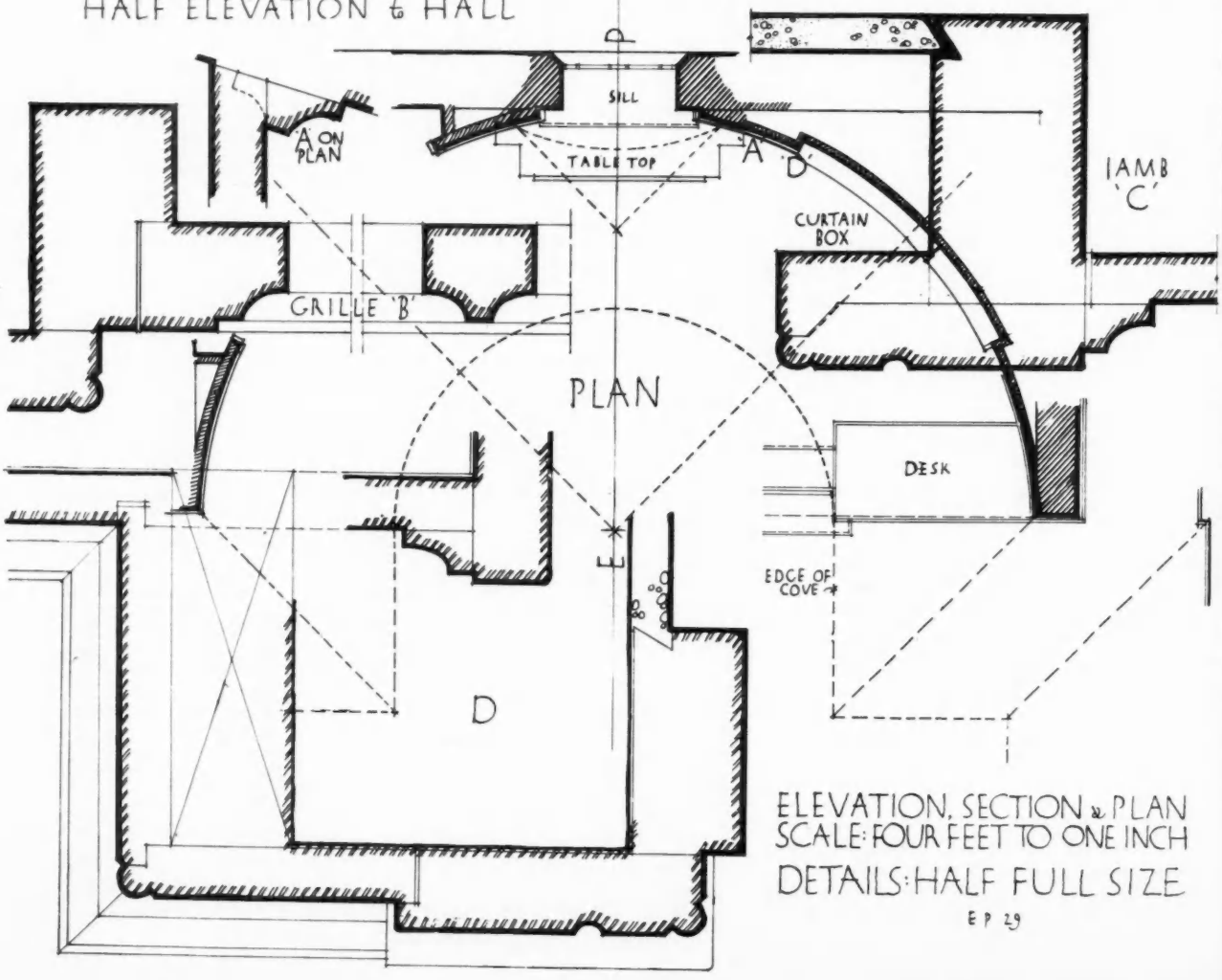
KINGSLEY HALL, BOW + E3
APSIDAL END to ASSEMBLY HALL

C COWLES-VOYSEY, ARCHITECT



HALF ELEVATION to HALL

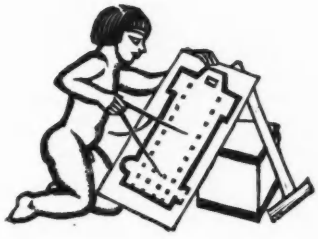
SECTION on LINE E-P



ELEVATION, SECTION & PLAN
SCALE: FOUR FEET TO ONE INCH
DETAILS: HALF FULL SIZE

E P 29

THE ARCHITECTS' JOURNAL



WEDNESDAY, NOVEMBER 19, 1930

STATION—ARY

ONE of the certain effects of a new mode of transport has been the generation of trade, the acquisition of wealth. And from this accumulation, proceeding gradually but inevitably, comes congestion, stagnation, a crisis—and either a new lease of life or the end of that particular prosperity or civilization.

Thus with us in England came the stage-coach and Telford's roads, came railways, steamboats; now motor cars, soon aeroplanes: each bringing new forms of wealth, then new forms of vested interest; and, finally, the state wherein the vested interests have become too powerfully obstructive to allow of the expansion necessary to the continued existence of the first cause of wealth.

In these days of rapid change and ceaseless power, of fresh mechanical invention, one hesitates to prognosticate upon the future of the railway as a mode of transport. With England only as an example, it might possibly be thought that the railway had reached a stage of stagnation and obsolescence from which it might never again emerge; but looking elsewhere in the world, one sees the railway in another light. That light, revealing through architecture an entirely fresh attitude towards railway travel *and its place in the social fabric*, may yet serve to lead the English railway from its black tunnel of present-day depression.

It is always pointed out to the critic of English railways that they are paying the price of pioneership, and that foreigners, coming after, reaped the fruits of our experience and started from a higher level of development.

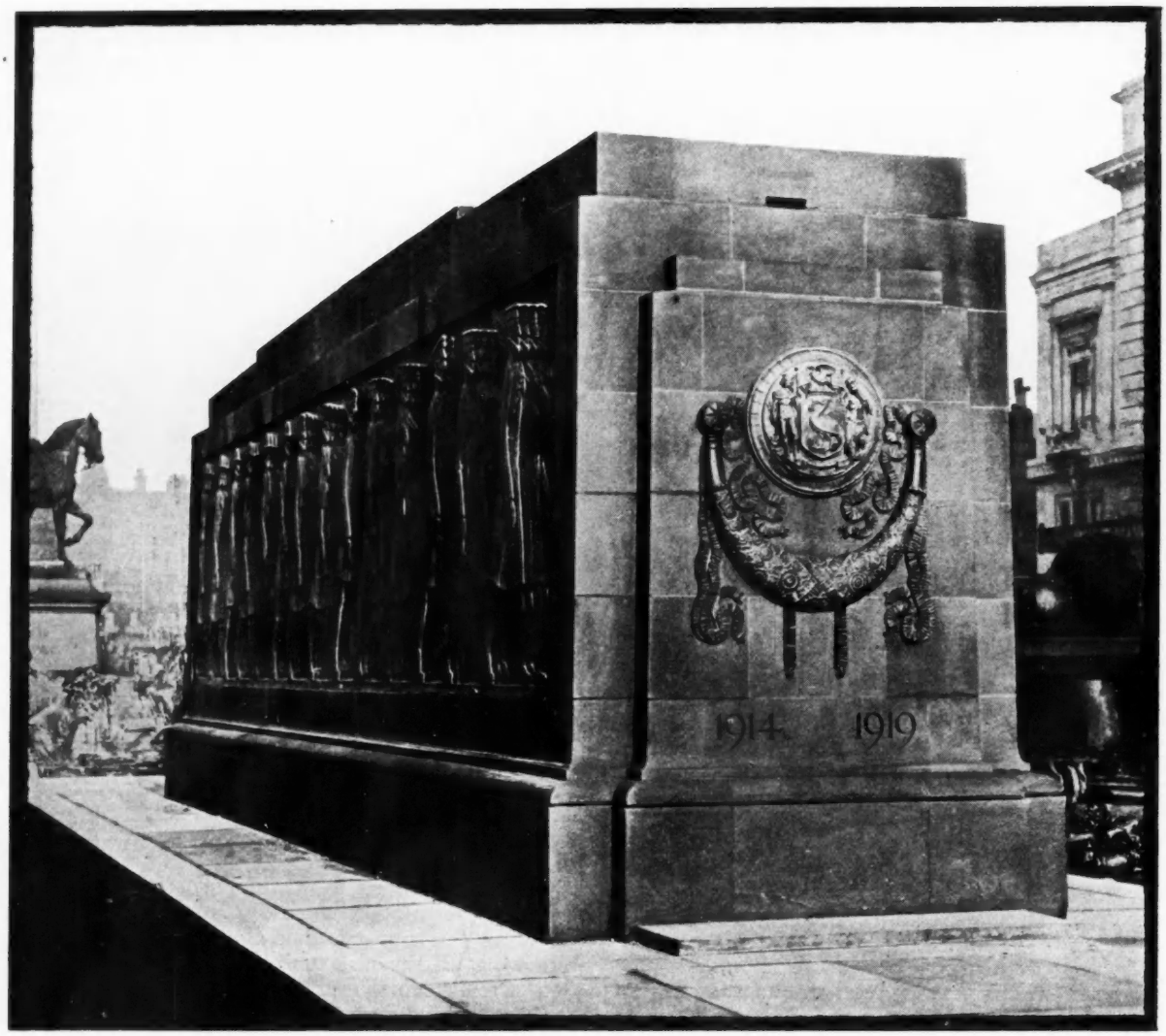
This is true in a limited sense, but it does not explain the one central fact through which our railways suffer in comparison with those of nearly every other country—we refer to the peculiar attitude of English railway directors towards the public they serve, as exemplified in the design and upkeep of stations great and small.

Once only, in Hardwick's Waiting Hall at Euston Station, the railway rose to a conception of its function in the social and civic fabric, and made expression in the grand manner. From that date, which saw other fine buildings erected, the spark died out; Hardwick's noble but forbidding gateway was blocked by the first railway hotel, and thereafter the portentous birthright of a form of transport, capable of evoking the highest architectural expression, was frittered away in a mass of fruitless building, which, far from evolving new types, merely added to and obstructed what was originally seemly and workable.

We feel it nearly beside the point to complain that Victoria Station is a muddle of advertisements, or that Euston Station is a ridiculous and wilful maze, if we are seeking only to clear up this physical mess, knowing all the time that nothing can be achieved on a scale commensurate with the grandeur of the colossal muddle until there is effected the entire reorientation of attitude which perhaps only the passing of the present boards of directors will bring about.

So long as directors regard railways as their own property, which for the public to interfere with by even the breath of suggestion is rank impertinence, then we can hope for nothing. We can expect a new Charing Cross Station to be only a replica of a hide-bound director's mind, designed by a *nobody* for a railway company, with no fine thought for its purpose, for the city it serves, or its high place in the architectural history of the age.

Oh, if for one moment it were thought possible to throw open the new Charing Cross Station to public competition instead of, or as well as, the new bridge, what new floods of imagination might there not sweep into the fusty warrens of degenerate railway officialdom! If we could only dissolve that monopoly of specialized wisdom, which supports the dying fires of directordom, what a fine station we could build to celebrate the second childhood of the English Railway!



THE LIVERPOOL CENOTAPH:
A STUDY FROM THE SOUTH-WEST

Unveiled by Lord Derby on Armistice Day, the Liverpool Cenotaph takes the form of a rectangular altar set upon an elevated stone platform, which enhances its dignity and incidentally provides a protected space for wreaths, immediately in front of St. George's Hall and facing Lime Street (to the right in the photograph).

The memorial has an overall length of 35 ft. and a height of 11 ft. A bronze plaque showing, in relief, the coat of arms of the City of Liverpool, and a swag, are affixed to each end, and rectangular bronze panels, 31 ft. by 6 ft., form the central features of the sides.

That shown represents men marching into action, and inscribed on the stone above and below it are two lines of lettering: AS UNKNOWN AND YET WELL KNOWN: AS DYING AND BEHOLD WE LIVE; *and:* OUT OF THE NORTH PARTS A GREAT COMPANY AND A MIGHTY ARMY. *The eastern panel, facing Lime Street, has a group of mourning figures, surrounding a Stone of Remembrance, in the act of commemorating Armistice Day, with, as background, the headstones of a great military cemetery. Here the inscriptions read:* TO THE MEN OF LIVERPOOL WHO FELL IN THE GREAT WAR; *and:* AND THE VICTORY THAT DAY WAS TURNED INTO MOURNING UNTO ALL PEOPLE.

The Cenotaph was designed by Lionel B. Budden, M.A., F.R.I.B.A., Associate Professor in Architecture at Liverpool University, and the sculptures are the work of G. H. Tyson Smith, A.R.B.S. Working drawings appear on pages 762–3.

NEWS & TOPICS



Sir Mervyn Macartney, F.R.I.B.A., surveyor of the fabric of St. Paul's Cathedral since 1906, who, it is announced, will relinquish his office on Lady Day next. Sir Mervyn's twenty-five years of office have witnessed the successful completion, after a mighty effort, extending over nearly two decades, of the measures to consolidate the Cathedral's structure. His knighthood was bestowed in recognition of the event.

NO WHITE ELEPHANT IN WHITEHALL

MR. LANSBURY may or may not have had in mind his recent experiences in connection with the Calton Jail site in Edinburgh when he stated in Parliament last week that the designs for the Whitehall rebuilding scheme would be entrusted to an architect in private practice. It is of considerable magnitude, for an expenditure of at least £2,000,000 is in contemplation, and on an island site on the eastern side of a widened Whitehall, extending from Gwydyr House to Richmond Terrace, with a corresponding Embankment frontage between Horse Guards Avenue and Scotland Yard, no fewer than six Ministries would be rehoused, while public gardens would be formed abreast of the Cenotaph. A Bill to sanction the widening of the road will have to be introduced; meanwhile, Mr. Lansbury says that the precise method of selection of the architect has not been settled. There is always the method of public competition: it would at least avoid a white elephant in Whitehall.

THE DISASTER AT LYONS

The tragic disaster at Lyons last week, when a number of houses collapsed on a hillside, has a moral for this country. I visited these streets at Lyons only a few months ago, and wondered at the way these high tenement houses, overcrowded to a degree fortunately unknown in Great Britain, clung to the steep hillside. In many rooms there can have been no through ventilation, and the conditions would undoubtedly have been condemned by any British Medical Officer of Health. The tragedy is a justification of our British policy of employing surveyors who, like the late Mr. Todd, will fearlessly declare even St. Paul's Cathedral to be a dangerous structure if they consider such action to be necessary.

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The whole question is closely related to that of building bylaws discussed at the R.I.B.A. last Monday. Many will feel that Mr. A. N. C. Shelley, the speaker of the evening, was somewhat supercilious in his references to the architectural profession. I have had the opportunity of discussing various aspects of this question with representatives of practically every branch of the building industry, and also with M.P.s of all parties. There is a general feeling that to leave the central control of bylaws to officials in the Ministry of Health, whose knowledge of the law may be extensive, but whose practical experience of architecture and building is but slight, is unwise. Both Mr. J. H. Thomas and Mr. Greenwood during the past few months have been considering the setting up of an advisory council of men with personal knowledge who will guide such officials. From the elaborate apologia offered last Monday it might be assumed that our Central Department does not welcome too heartily any outside criticism. Sir Frank Baines, formerly Chief Architect at the Office of Works, was very downright in his recent comments on the present system.

HOUSING PROVIDED BY THE COMMUNITY

The figures for London housing, announced by Mr. Angus Scott, the Chairman of the Finance Committee, are a useful reminder of what is being done. £34,000,000 has been already spent, and the Council are committed to a further £20,000,000. But beyond that they have voted £500,000 for buying other sites, the ultimate development of which will cost some millions. Then the Borough Councils had spent £11,000,000; another £4,000,000 has been lent to owner-occupiers on easy terms, and the grand total of expenditure, as far as present commitments go, reaches £75,000,000. Of this, £65,000,000 comes directly from ratepayers, who will have spent £15 per head upon the housing of the working classes, so that one out of every ten of the population of London will be living in a house or flat built by the community and subsidized up to a third part of the economic rental. That is Socialism in our time.

THE CHURCH'S SLUMS

The Church of England is the owner of slum property as bad as may be found in London. This property is not under the direct control of the Church Assembly, nor even, since it has been allowed to become a tangle of leases and sub-leases, under the effective control of the Commissioners. But the property belongs to the Church, and the Church draws income from it: more income when it is slum property than when it is not.

★

The citizens of London, through the L.C.C., have spent £34,000,000 on the housing of the working classes and continue to spend money upon the provision of new houses and the reconstruction of insanitary areas. I know that the L.C.C. is not a landlord in the sense that the Church is a landlord, yet one cannot but compare the spirit which fired the L.C.C. to put their fine work in hand and to increase its scope year by year, with the unquestioning resignation of the Church Assembly in the face of similar facts and no worse difficulties.

The Church has been advised that its worst property was long ago leased and sub-leased, and that control over it was therefore lost—and the Church acquiesced and accepted, instead of taking action to see that control over its own evil were restored to it. At a time when campaigns are being launched against slums, it would be a fine thing if this great landlord, the Church, would see its work among these very slums and engage itself upon a mission of reconstruction as thorough as that of the L.C.C.

IN MAYFAIR—NOT AMERICA

Let me now transport you in fancy to Mayfair, to the new modernistic hotel which Mr. Maxwell Ayrton is to build on part of the site of Lansdowne House. Costing well over a million pounds, it will differ materially from any hotel yet seen—a great restaurant ballroom; and 350 bedrooms, each with its own bathroom, and each having embodied in its specially designed decorative scheme a picture by a contemporary British artist of note. For the selection of the artists a committee has been formed, consisting of, among others, Sir William Llewellyn, R.A.; Sir William Orpen, R.A.; Mr. Philip Connard, R.A.; Mr. Stanley Spencer; Mr. C. G. Holmes; and Mr. Maxwell Ayrton. Each artist will paint or choose his own picture to suit the decorative scheme. Sir Owen Williams is consulting engineer; and Mr. George Sheringham will act as art director, with Mr. Maxwell Ayrton, for the colour schemes, decorations and furnishings.

THE NEW R.I.B.A. LIBRARIAN

To succeed Mr. Rudolf Dircks, to whose retirement from the librarianship of the R.I.B.A. and editorship of the Institute's *Journal* I referred recently, Mr. Carter, elected an Associate last April, has been appointed. Edward Julian Carter, who is a B.A. of Cambridge University, was educated at Lancing and Magdalene College, taking an honours degree in history and carrying off the Donaldson Essay Prize with an essay on "The Renaissance." Entering, thereafter, the A.A. School of Architecture, where he gained the Second Year Travelling Studentship, he emerged from the five years' course with the School Diploma in 1928. With such an apprenticeship behind him, and much of the full vigour of life ahead—for he is yet in his twenty-ninth year—Mr. Carter embarks on onerous duties with the good will of all concerned.

THE RALPH KNOTT MEMORIAL TAKES SHAPE

Nothing is more pleasing, in looking over the list of donations to the Ralph Knott Memorial Fund, than the presence therein of many names of firms engaged in the building industry, side by side with those of the late architect's professional intimates. The respectable total of £1,040 has already been reached, and Mr. Yerbury intimates that contributions to the fund may still be sent to him at the A.A. The memorial is likely to take a form that would, I imagine, have been highly gratifying to Knott himself: a memorial plaque, to be made by Gilbert Bayes and affixed to the London County Hall; and the founding of a maintenance scholarship of some £50 per annum, tenable in the A.A. schools.

A CONVENIENT BURROW IN LONDON'S WARREN

Rather over a year ago attention was drawn in these notes to the fact that there was still no interchange station between the Piccadilly and Central London Tubes, and that transit from Holborn to British Museum stations involved nearly two hundred yards of crowded pavement, a perilous street crossing, and the use of two lifts. A scheme to abolish these inconveniences and amalgamate the two stations was embodied in the Underground Company's Bill, presented during the last session of Parliament and since passed into law. The contract for these works has just been placed; they comprise the reconstruction of the existing Holborn surface station, the closing down of British Museum, the building of new platform tunnels for the Central London line under those of the Piccadilly line, the installation of four escalators leading down to the first, and of three more leading down to the second, below. The total cost will be £170,000.

"WHEN LOVELY WOMAN STOOPS——"

Periodically, on the Woman's Page of one or other of the daily papers, there appears a column or so about the wonderful things to be done by women architects. Curiously enough these usually centre on sinks, though rounded corners, floods of light, and built-in fitments run them close. Thus in *The Morning Post* of late, after remarks as to correct backgrounds for different neurotic symptoms, we arrive at the sink in the following choice excerpt (let me break into parallel comment):

"Why do architects always put the kitchen sink so far from the stove?" I once asked a professional. "We do it on purpose, of course," he replied. "How else could the cook get the necessary exercise?"

This shows how dangerous it may be to "pull a woman's leg," for the grave comment follows:

I doubt if cooks appreciate this forethought. At all events, my psychological house is built to save as much exercise as possible. The larder shelves are of glass and the door fits flush to the wall so that the food-storing space is invisible. There are shelves all round the walls. Everything is to hand, and the whole effect is so pleasing that I find it difficult to coax my friends out into the lounge.

Shelves in a larder are of course quite a novelty, but why this shamefaced hiding of the "food-storing space"? I *like* food, and so do most of the sylph-like young things of my acquaintance.

We now arrive at the inevitable "dust-proof" phase, as follows:

Hard, sharp lines and corners that gather dust will be banished from the woman-built home of the future. All my ceilings merge into the walls and my skirting boards have curves instead of corners. The doors are flush to the walls and of beautifully grained wood.

Well, well!

After this the trustfulness of our lady architect has another spell:

All taps are washerless and cannot drip, and the pipes are of copper which does not burst in the hardest frost.

I have fitted a tap for which this claim was made: it lasted three weeks.

From thence to the end language grows lyrical—a dining-room mantelpiece with its alliterative "luminous lintel of satin-finished wood" being a charming touch:

Women who would build such homes for a nation must know every detail of the work from the laying of the foundations to the choosing of the window curtains.

Following these lines they will also do well to choose their clients from among the wealthy classes; or perhaps as these are to be "homes for a nation" it had better be some other nation than this.

ASTRAGAL



A general view of the church from the north-east, showing the campanile, and the windows of the sanctuary and transept, to left and right, respectively. The main entrance is seen on the extreme right.

ST. ALBAN'S CHURCH, BARRAS GREEN, COVENTRY

DESIGNED BY H. B. CRESWELL

ST. ALBAN'S, which has lately been completed, stands upon an open site facing north over Barras Green, Wyken, Coventry. The church belongs in a particular way to the parishioners; for the building fund was, in the main, collected in the parish, which is a poor one, over a period of several years by the Vicar, the Rev. Claud Phillips. Economy of construction was, accordingly, a condition of the design, but in securing this no element of cheapness has been allowed; the materials are all the best of their kinds and, as is appropriate to a place of worship, the whole is the work of men's hands and, so far as such a thing is now possible, the machine has had no part in the work.

As economical church building is a common need at this time, and to build a church well at a cost of £14 a sitting would by many architects be deemed impossible, exact particulars of St. Alban's are not without interest.

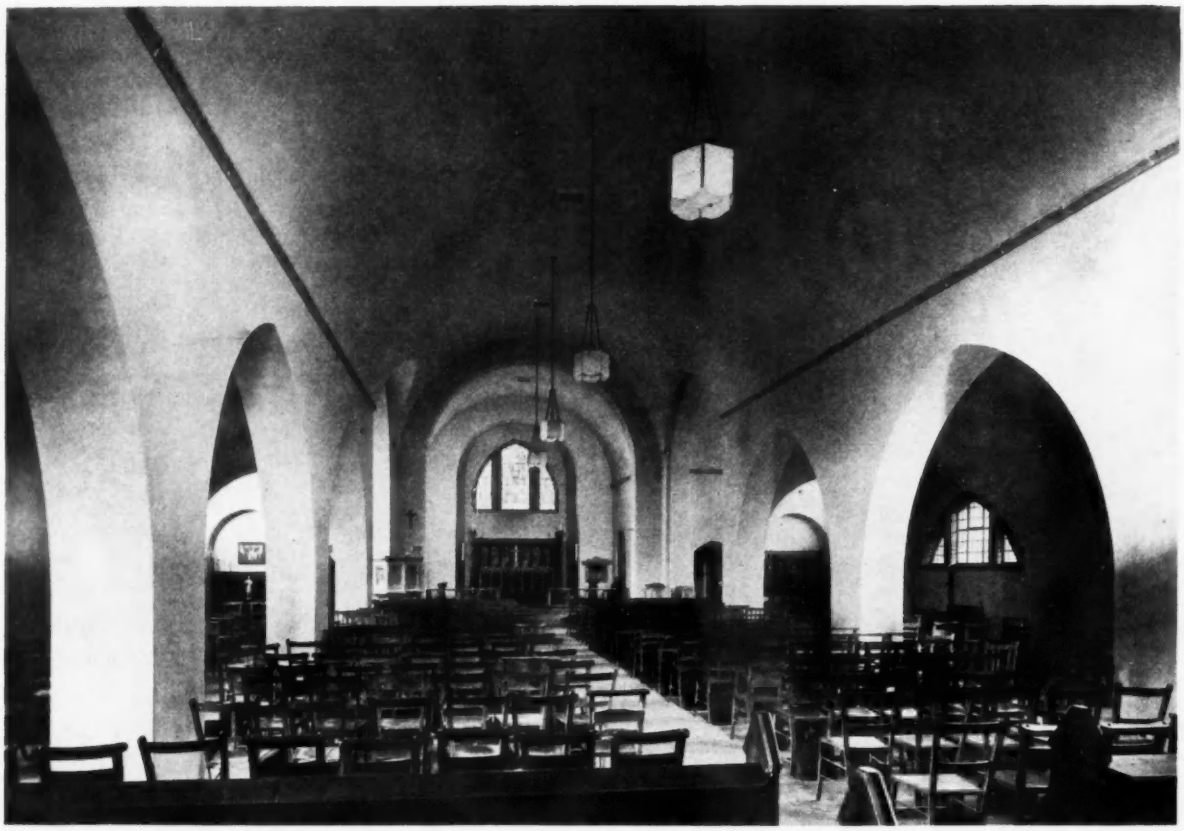
The church seats 520, allowing the full measure of 1 ft. 8 ins. by 2 ft. 10½ ins. to each sitting. There are a priest's vestry and a service vestry; a choir and organ gallery over a baptistry at the west end; a heating chamber; and ambulatories giving access to the chancel for communicants. The main walls are 1 ft. 10½ ins. thick, and there is a campanile. The materials are 2⅜-in. bricks and 10½-in. Lombardic tiles, hand-made and sand-faced;



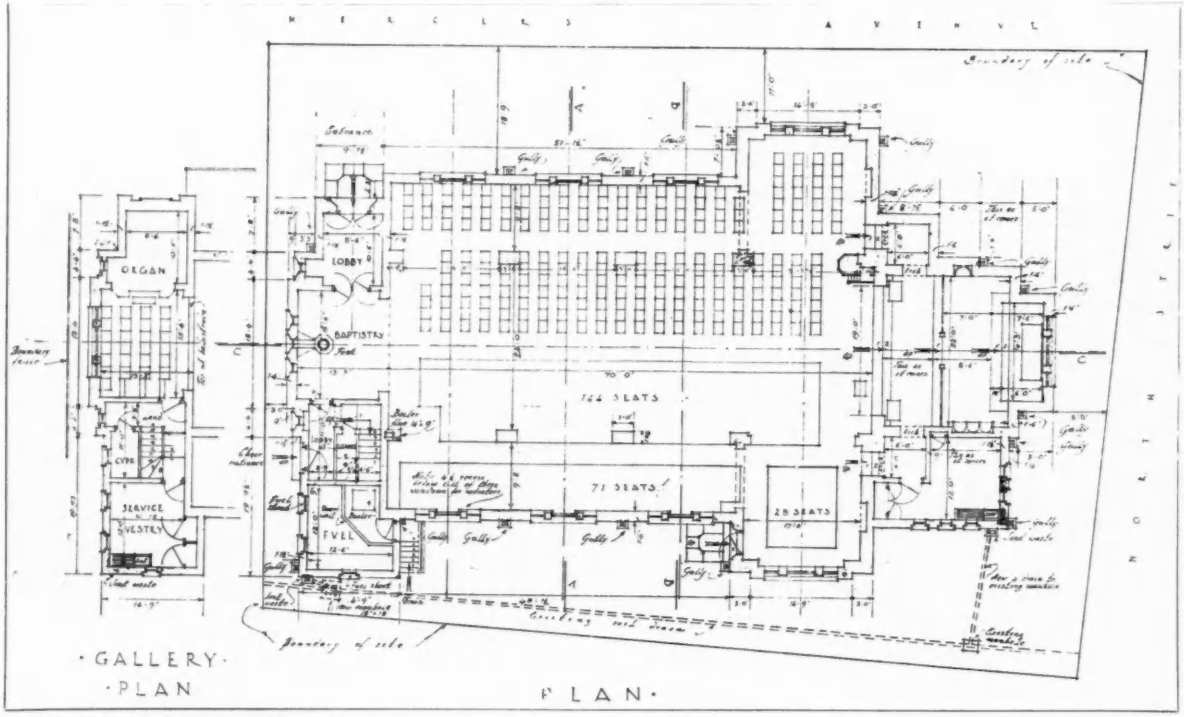
The principal entrance doorway, at the north-west corner of the church, affords examples of fine craftsmanship in brick, stone, oak and wrought iron.

choice English oak wrought by hand, with smith-made ironmongery; blue Forest of Dean stone, Cork Red marble; and plaster. The whole, including all services and fittings, except pulpit, prayer-desk, font, and east window, was built by Messrs. H. Clarke and Sons, of Coventry, for £7,350, which is, as has been said, £14 a sitting. This low cost is in some part due to the design of the roof, which is constructed of trussed rafters so arranged as to form cradling for the plaster barrel, and to allow the ceiling to rise to within five or six feet of the ridge and the height of walls to be much reduced.

The design is an attempt to combine the traditional plan of the parish church with that of mediæval brick architecture. Attempts to render English Gothic in terms of brickwork commonly depress the beholder by reminding him of the absence of the stone which the bricks replace; and the more closely the brick design follows the stone tradition the more painful is the disparity. Any attempt, moreover, at such substitution, involves the brickwork tradition of eighteenth-century architecture which was itself a revolt against Gothic. Traditional Gothic brickwork has to be looked for in countries where stone was not readily available, as in Lombardy and Flanders; here is an attempt to combine the tradition of Gothic brickwork with the traditional form of the English parish church.

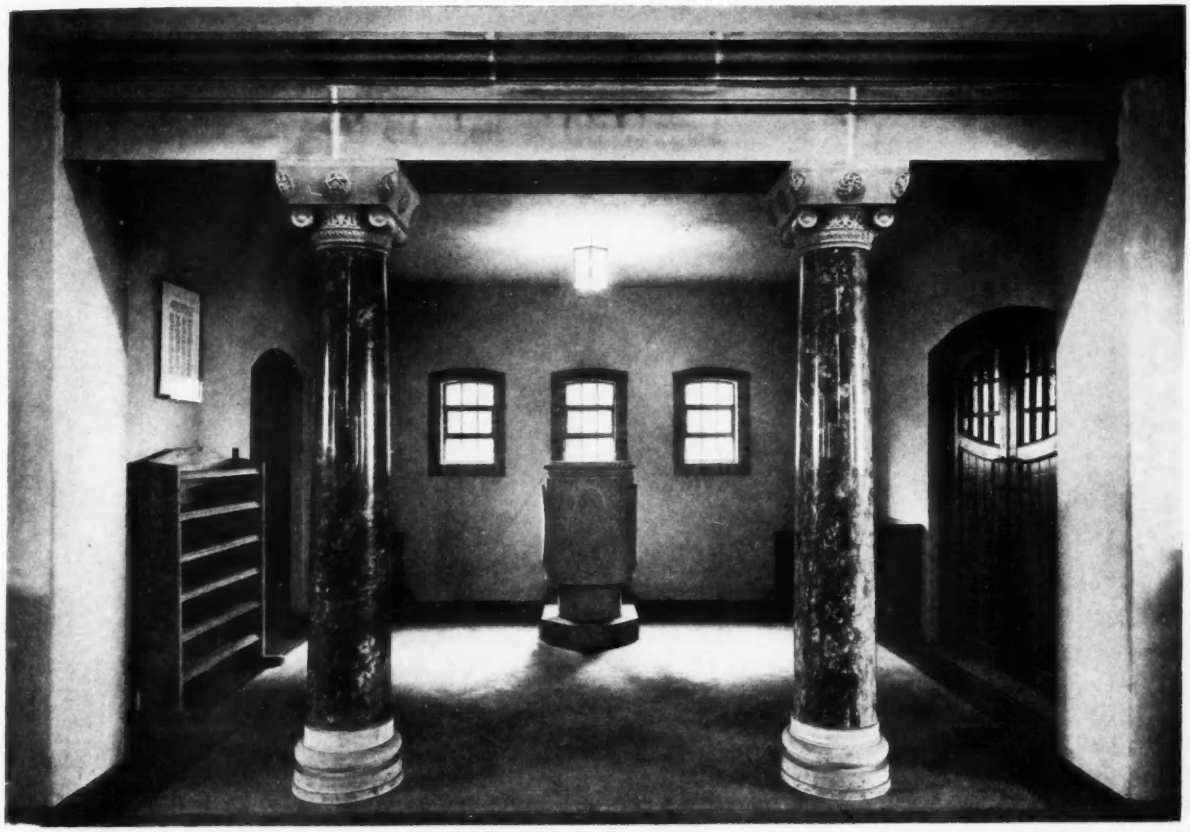


A general view of the nave, looking towards the altar. The roof is constructed of trussed rafters, forming a cradle for the plaster barrel. This form of design enabled the height of the walls to be kept relatively low.



St. Alban's Church, Barras Green, Coventry.]

Plans of the ground floor, and of the choir and organ gallery which spans the western end of the church. The building affords comfortable sittings for 520 persons, and, by economy of design, does so at a cost of £14 per sitting.



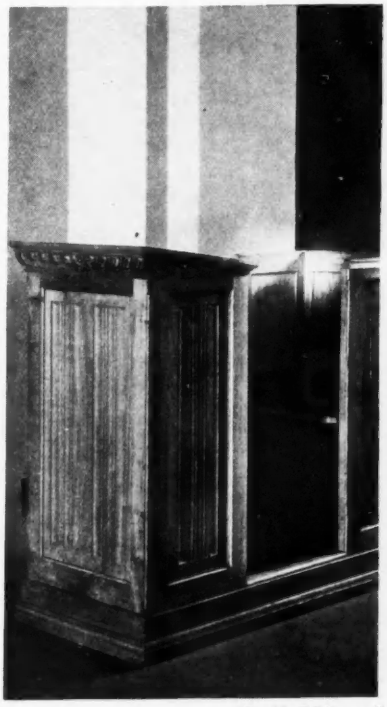
The baptistry at the western end of the church, showing the marble columns with carved capitals that support the choir gallery and organ loft. The doors on the right lead to the main entrance lobby; that on the left leads to the gallery stairs.



The pulpit is hand-carved in oak. The archway behind leads from the sanctuary.



The font, placed centrally against the west wall, is of Forest of Dean stone.



[By H. B. Creswell

English oak, hand-carved, is also used for this prayer-desk in the sanctuary.



A London Flower Shop.] [*By J. Stanley Beard and Clare.*

The centre portion of the showroom, showing the laylight in the ceiling from which natural lighting is obtained. The wall treatment provides a quiet and dignified background for the flowers. A general view appears on page 761.



The shopfront faces Victoria Station, the gateway to the Continent. It is about 30 ft. wide. The surround is in blue pearl granite, and the ornamental architrave and the entrance doors are in burnished stainless steel.

A LONDON SHOP WHERE ROSES BLOW

DESIGNED BY J. STANLEY BEARD AND CLARE

FOR the contemplation of flowers solitude is, of course, the ideal condition. Those who know anything of the vicinity of Victoria Station, however, will recognize the extreme difficulty of finding seclusion unless they wander a considerable distance from its suburbs.

Such a thing as an unfrequented retreat in the neighbouring Royal parks cannot for one moment be imagined. The lover of Nature, imprisoned in the dust and din of this great metropolis, will hunt in vain for privacy amid the scenes of natural loveliness which surround him there. No observing person, however, will forget the sensations of awe and admiration with which he gazed at the flowers in their glimmering glades and bowers; the favourite haunts of the overseas and provincial sightseer.

Flowers of even rarer beauty, gathered from beneath all heavens, each lovelier than the name it bears, shyly or proudly peep from the windows of Moyses Stevens, one of the most popular flower-shops in London, and a firm with Royal appointments, whose new building has been recently completed in Victoria Street on the site of the old one.

It was in 1926 that Allington House, at the corner of Victoria Street and Allington Street, was erected from the designs of Mr. J. Stanley Beard, F.R.I.B.A. In 1928 this building was extended farther westwards, Moyses Stevens having acquired Nos. 144–150 Victoria Street. Ebury House, that portion of the scheme in which the firm is housed, has just been completed, the architects now being Messrs. J. Stanley Beard and Clare.

The design of Ebury House carries on the architectural lines of the earlier building, but these are emphasized on the Victoria Street façade by a stone pavilion, which forms a prominent feature of the complete scheme.

The Moyses Stevens shop occupies the central position on the ground floor, and the shop-front has been specially designed by the architects to provide the maximum amount of glass area and window space for the display of the flowers. It is carried out in blue pearl granite, with burnished stainless steel ornamental architrave and entrance doors. The architects were greatly assisted in their task by Mr. Harold Stevens, who supplied many original ideas, and whose unfailing colour sense contributed largely to the successful design of the showroom.

In the spacious main showroom, which is 95 ft. long by 30 ft. wide, particular attention has been paid to the wall treatment, the chief aim being to provide a quiet and dignified background for the tiers and banks of flowers exhibited. The walls are lined with Subiaco marble and have Travertine pilasters and a black marble skirting.

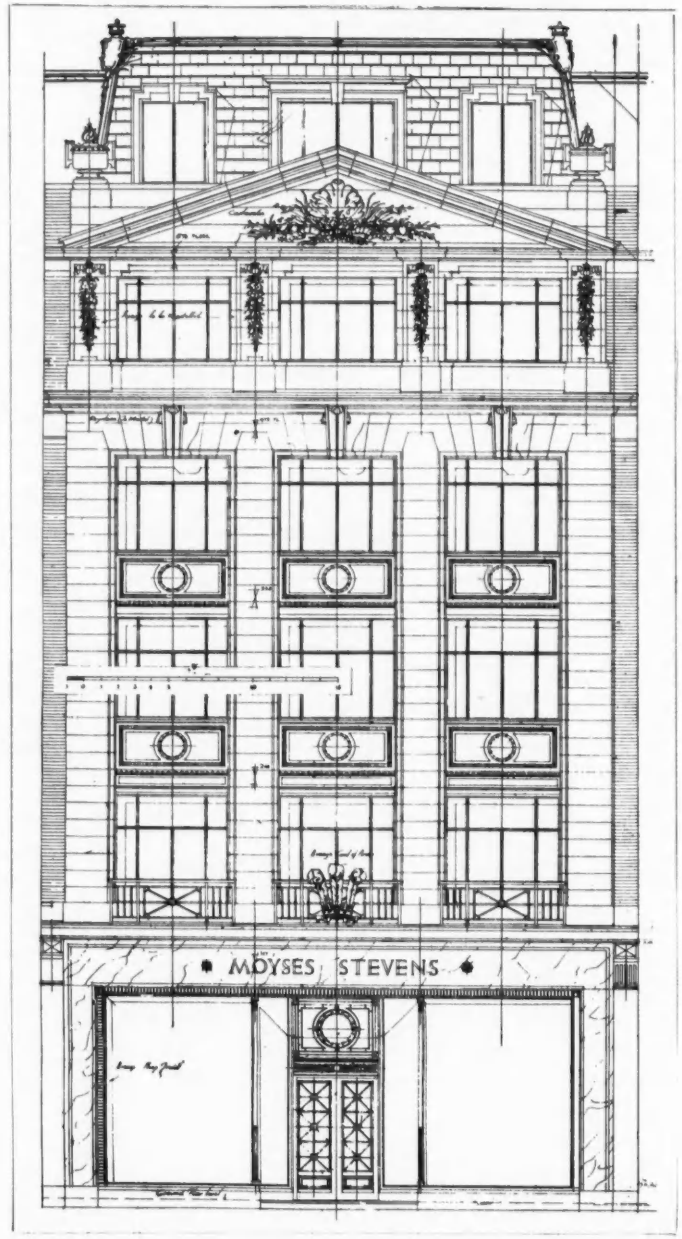
Mirrors have been introduced to break up the long length of walling. These have a Travertine marble band as an architrave to the moulded bronze frames around them. For ventilation purposes — highly necessary in the damp- and scent-laden atmosphere prevalent in florists' shops—specially designed bronze grilles are introduced into the corners of the mirrors. The floor is covered with Travertine marble, laid in large squares. The showroom obtains natural lighting by means of a laylight in the centre of its length.

Here, then, if the visitor has not the advantage of being sequestered with



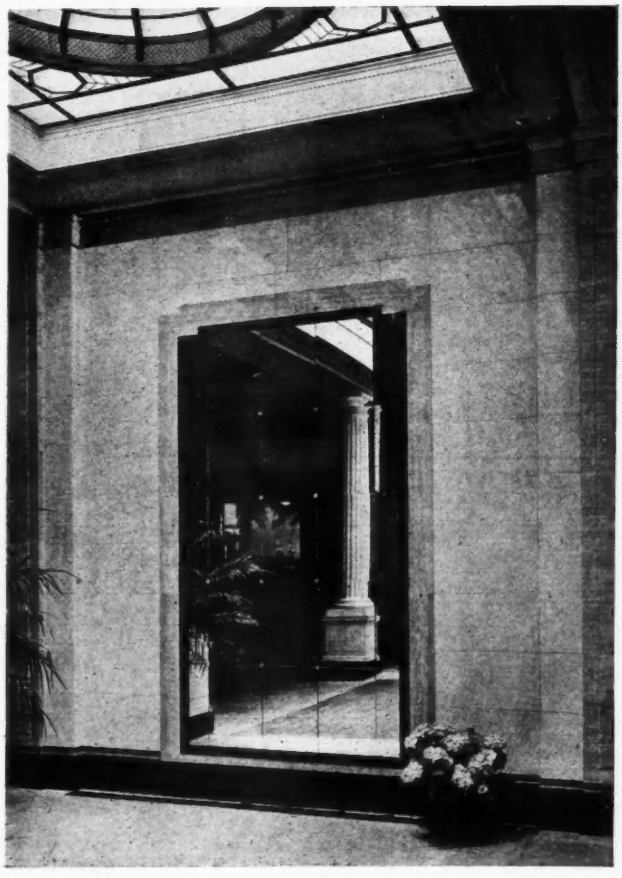
A London Flower Shop. [By J. Stanley Beard and Clare.

The new block of buildings at the corner of Victoria Street and Allington Street. Moyses Stevens' flower-shop, the architects' elevational drawing of which is reproduced, occupies the centre of the Victoria Street façade. The entrance doors lead direct to the showroom.





A London Flower Shop.] [*By J. Stanley Beard and Clare.*



The showroom, looking from the main entrance doors in Victoria Street. The walls are lined with Subiaco marble and the skirting is in black marble.

One of the mirrors in the showroom. In the corners of each are bronze ventilation grilles to remove the scent- and damp-laden atmosphere created by the flowers.

the choice blooms, he can at least see and procure them in profusion and in all their natural beauty.

European Architecture

A lecture on the above subject was delivered by Mr. F. R. Yerbury, HON. A.R.I.B.A., at a meeting of the Brighton Chapter of the South-Eastern Society of Architects, held at the Municipal School of Art, Brighton.

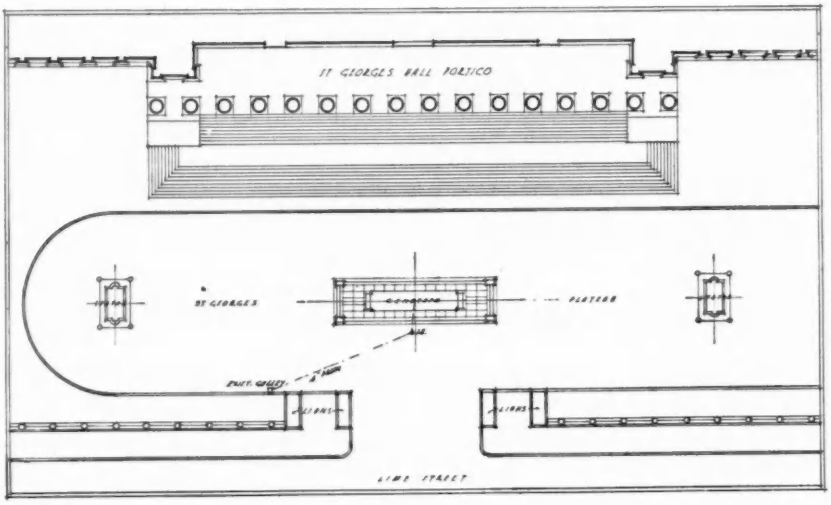
The lecturer illustrated his remarks by means of a large number of slides of architectural work in most of the European countries, including Holland, Austria, Germany, Sweden, and Norway, all of which showed that the present tendency was to eliminate detail and ornamentation, and to give preference to light and colour.

Generally speaking, he said, more attention was given to external appearances than to utilitarian advantages, and so far as housing schemes were concerned, the standard of accommodation was much lower than that adopted in this country. England had the best housing schemes of any country in the world, because we had adopted a type of house which accommodated a family, in preference to the tenement system, although in London, where land was extremely dear, the tenement system could not be avoided. With regard to factories and similar buildings, however, the Germans and the Dutch were far ahead of us.

CITY OF LIVERPOOL CENOTAPH

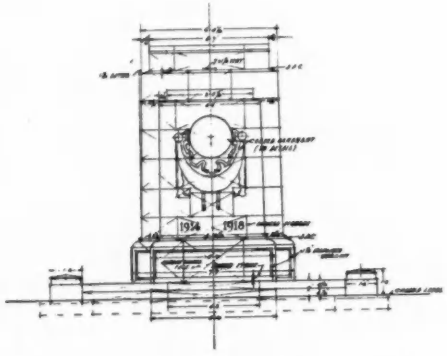
DESIGNED BY LIONEL B. BUDDEN

On this and the facing pages appear a series of reproductions selected from among the architect's drawings for the Liverpool Cenotaph. This was unveiled on Armistice Day and forms the subject of the frontispiece to the present issue. The drawings are to three scales. First comes the general site plan in miniature, to show the position of the cenotaph relative to St. George's Hall, with which it is designed to accord in form and fabric. The remainder of this page is devoted to longitudinal and cross sections, together with an end elevation, all to the same, and a somewhat larger, scale: a part only of the longitudinal section is included, the ends being identical. Part side elevation and plan drawings, still larger, are given opposite.

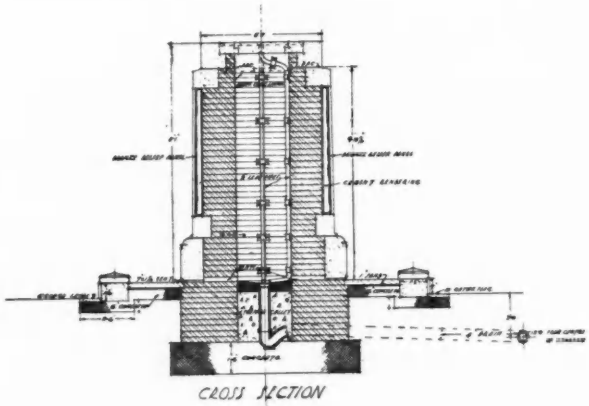


SITE PLAN

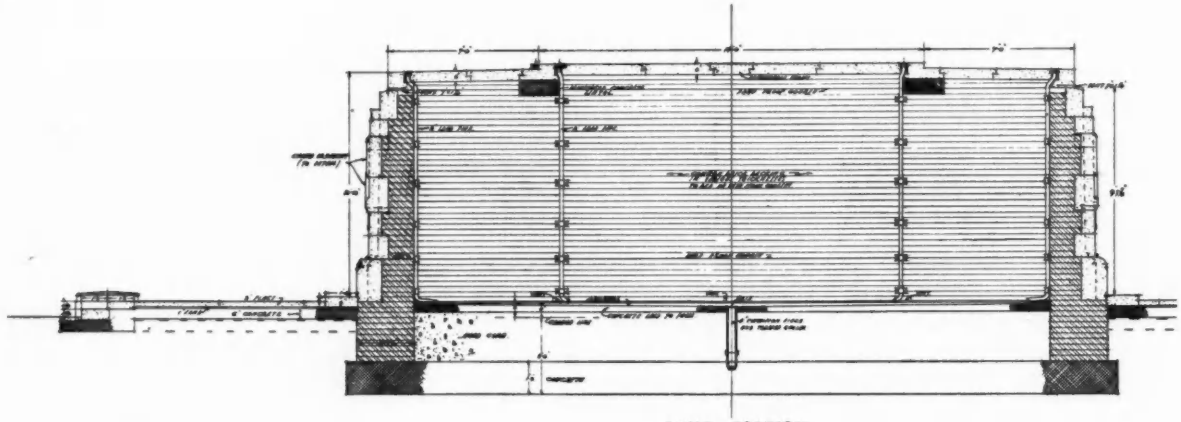
SCALE OF FEET



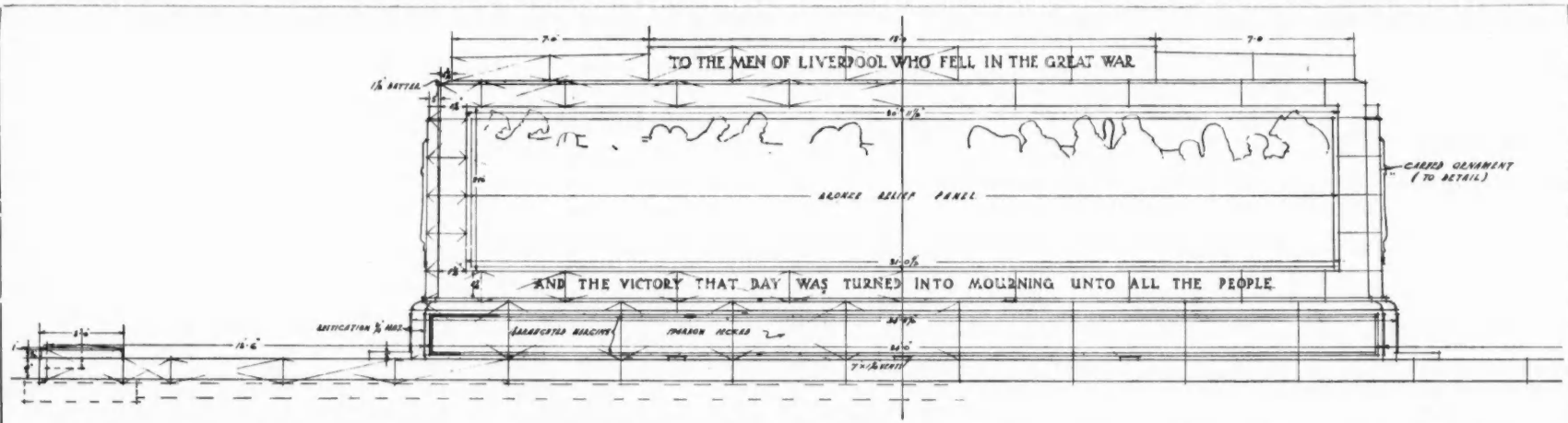
END ELEVATION



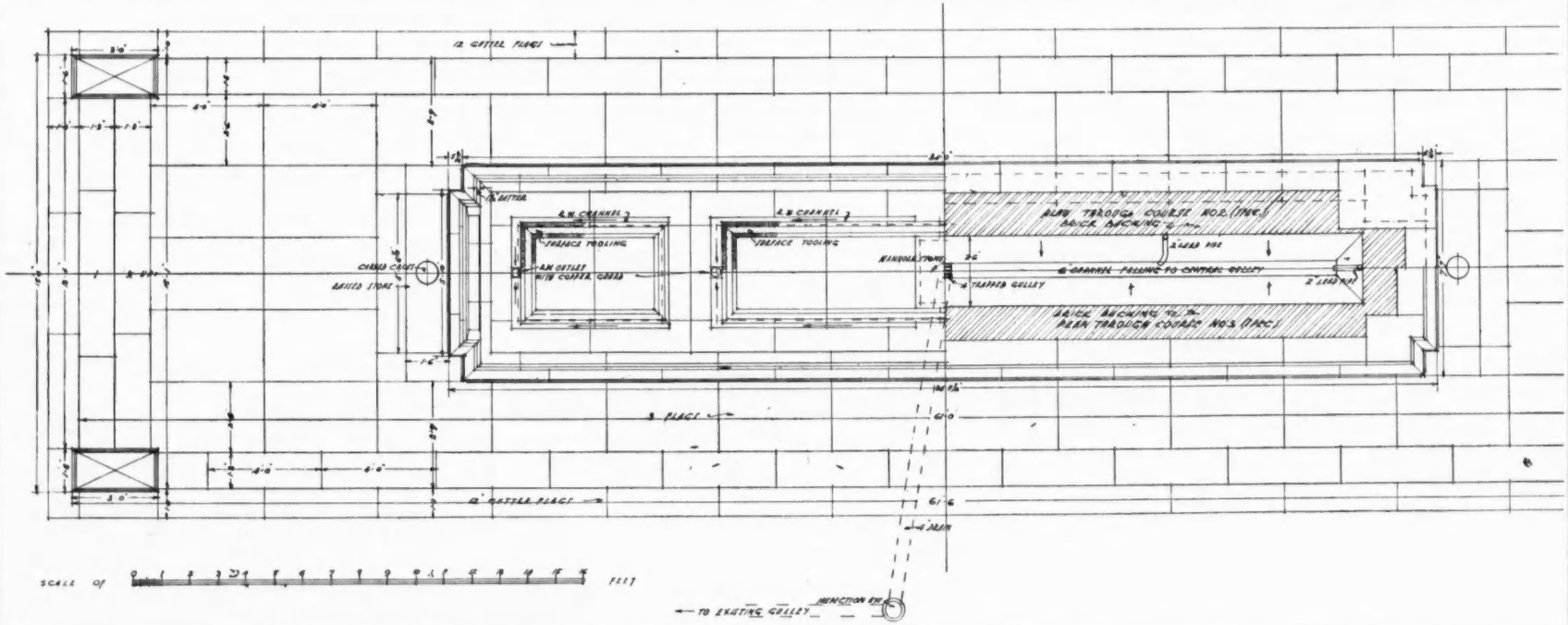
CROSS SECTION



LONG SECTION



The elevation of the Liverpool Cenotaph to Lime Street ; and half-roof and half-sectional plans (the parts omitted are similar to those shown). The bronze panel on this side shows a mourning group surrounding a stone of remembrance ; that facing towards St. George's Hall, fighting men marching into action. Above and below run inscriptions set in the stone. There are bronze plaques of the city arms on the two ends. The plan, when studied with the longitudinal and cross sections on the preceding page, shows the interesting arrangements for running off rain-water from the top of the monument. Mr. G. H. Tyson Smith was the sculptor associated with Professor Budden, the architect, for the lettering and ornamental work.



PUBLIC CONTROL OF BUILDING

The Position in 1930

FOLLOWING are printed as many extracts from the lengthy and important paper read by Mr. A. N. C. Shelley, M.A., B.C.L., at the R.I.B.A. last Monday as space will allow :

At the end of the paper which I read before the R.I.B.A. in 1922, I said : "We still get much less help than might be possible from the architectural profession . . . architects who find themselves in difficulties should not hesitate to make them known to us." In the eight years which have elapsed, the reasoned complaints against the present law or its operation received in the Ministry of Health from architects have been less than one a year.

The trend of legislation, and of governmental action, throughout the twenty-one years I have been in the service of the Crown, and the longer period during which I have been familiar with local government, has been steadily towards increasing the power of elected local authorities, and this trend has been markedly accelerated in the last ten years. The problem which we have to face is to ensure that local authorities . . . shall keep their local legislation and methods of administration up to date, and avoid needless restrictions upon building and development.

There are outside London 1,763 local authorities in England and Wales; of these, 1,122 are the councils of boroughs or urban districts. Many urban districts have no bylaws. There are 641 rural district councils. About one-third of the rural districts in the country have no bylaws. About one-third of the rural districts have bylaws based upon the rural model, which contains no provision restricting the materials of buildings and so contains no provisions restricting steelwork. The remaining one-third of the rural districts have bylaws which contain no requirements as to the structure of warehouse buildings, and as regards public buildings and domestic buildings simply require that steel construction shall be adequate to secure due stability. In the rest of the country, whether the districts be thickly populated industrial areas or residential areas, whatever bylaws exist allow steelwork for all classes of buildings —or (in some districts where revision took place some years ago) for all except domestic buildings —either without imposing any requirements or imposing only the requirement that it shall be adequate to secure due stability.

It will thus be seen that, unless under local Acts, there is no legal impediment anywhere in this country to the ordinary use of structural steelwork.

I have heard complaint made of a bylaw "that all sanitary work must be carried out to the satisfaction of the Council and its officials" —a bylaw which conceivably might have been enacted somewhere seventy or eighty years ago, but I have never seen it, and since 1875 it has been regarded as legally impossible.

One hears again that the architect finds his style cramped by the requirement in bylaws of 9 ft. or 8 ft. 6 ins. for the height of rooms. As I have said before, bylaws governing the height of rooms are almost dead. Of rural districts, concerning which the complaint has been most vocal, there is certainly not one in ten having any bylaw at all upon the subject. In urban districts and boroughs the bylaw is also very rare except in the industrial North and the suburban districts outside London, which are influenced by the existence of a statutory requirement of 8 ft. 6 ins. in the London Building Act. Where the bylaw exists, there are not more than three places in the country where 9 ft. is still required, and not a dozen where the height required is more than 8 ft.

The final clauses of the model series which deal with the giving of notices and the deposit of plans and sections, and generally with the enforcement of the bylaws, like the rest, have been recast in recent years, and we have no reason to think that architects find them oppressive or unsatisfactory. It is to be remembered that the duty of the local authority in considering the plans for ordinary buildings is to enforce the law. It cannot effectively reject plans which show compliance with the law, but, on the other hand, it is entitled to adequate information of what the builder or architect proposes. The other day I had to deal with solicitors who complained that a local authority had rejected plans by a "well-known architect" for laying out some land. On looking at the plans, we found that the proposed means of drainage of the buildings was not shown—and even a well-known architect is hardly an equivalent for drains. A good proportion of the correspondence and complaints which reach us in the Ministry would never have arisen if builders and architects had realized this elementary point—that to the extent required by the bylaws they must inform the local authority adequately what they are proposing. Quite commonly we find an architect (especially of "well-known" standing) does not consult the bylaws; an omission which is unfair to his client, as well as likely to cause needless labour to himself. He waits for the local authority to tell him what is in them. Once a plan is deposited with the local authority, the builder or architect is under no legal obligation, under the ordinary law, to await approval : he is entitled, by the express language of the Public Health Acts, to proceed—although obviously it is better to wait a reasonable time, to learn from the local authority whether they approve or not. In other words, the approval of plans is not a legal preliminary to the commencing of work, although the deposit of plans is—to the extent required by the bylaws. "To the extent required by the bylaws." I read somewhere the other day that "no building can be started in Great Britain without the drawings being approved by some authority. It may be the district surveyor; it may be the Ministry of Health, or the County Council, or the ground landlord." This is a grave exaggeration. There may be cases where the Minister must approve the plans of buildings, but, apart from some buildings erected by local authorities themselves, I cannot think of any. . . . A provincial local authority dealing with the plans of buildings is, by Act of Parliament, required to approve or disapprove within a month. On the Minister's behalf the opinion has been expressed in correspondence that even this time is too long, and there are plenty of local authorities who deal with plans more quickly. But if, in a particular case, you are sure that the plans you have put in are adequate to show compliance with the law, you can go ahead, and, if they are not dealt with within the statutory period, there is no reason why you should not bring the fact to the Minister's attention.

Do not over-estimate the effect or geographical extent of Parliament. Most of the local Acts passed in recent years are unlikely to have an adverse effect on building, and the areas where local Acts of an old and obstructive type exist, or indeed the areas where there are any local Acts at all, are few in number taking the country as a whole.

Inquiries into foreign building law and practice have not been restricted to America. We try to draw on the whole world, and at the present day there is no country where the system of control is comparable, where more has been done than in England to fit legal control to the use of modern building methods.

The control of building does not end with the approval of plans. If public control of building is to be preserved, the public supervision of the actual work must be upon the spot. At present it is an official of the local authority who does it (where it is done at all). The suggestion for national administration of the law of building means, therefore (if anything at all, which I doubt), not only that control would be extended to work which, without detriment to anyone, is now left alone; and that the officials, who must be stationed locally, would be controlled not by the elected local authority but by the national Government. It is difficult to see what public advantage would accrue. Greater uniformity in supervision, possibly, but supervision (so far as necessary at all) involves dealing from day to day with many details on which it is doubtful whether greater uniformity could be attained, unless by issuing voluminous rules or by constantly referring doubtful points to headquarters. Public complaint has (rightly or wrongly) recently been made that even in London, geographically small, the rules issued for the supervisory officials, and the delays caused by their references to the County Council, are vexatious ; and if central supervision of building throughout the country were introduced, similar, but intensified, complaints would be inevitable : supervision would be rendered slower, and more mechanical, and so no more acceptable to industry than it is at present.

The consolidation of the Public Health Acts when effected will be a great step in advance. And everybody who is affected hopes that it will be but the beginning of the consolidation of other branches of the law connected with public health, with building, and with local government.

We in the Ministry are committed to a programme, in which Poor Law, Housing and Town Planning have been already done, and I do not forget that the R.I.B.A. has urged us already to press on with the Public Health Acts. But even for consolidation there are competing claims on the time of Parliamentary Committees, and it is for those who want a particular subject dealt with to assert themselves. . . . In some respects the greatest of architects' needs, as I construe them, is speedy and inexpensive justice. Various suggestions have been made from time to time. The conferring of exclusive jurisdiction on the Minister and the setting up of special tribunals to deal locally with disputes on building, both suggestions involving elimination of the ordinary courts, were examined by the Departmental Committee and rejected. For parliamentary and practical reasons they are not worth pursuing. You are thus thrown back on three ideas—an obligation, imposed on a local authority which rejects a plan, to state its reasons (this lies at the root of everything); then a voluntary jurisdiction exercised by the Minister by agreement as at present ; and, where there is not agreement to lay the case before him, a speedy resort to the courts at the most convenient stage. These ideas involve no outrage on the constitution and no interference with the courts.

Four summarized aims : First, freedom from control where control is not essential.

Secondly, that control which is out of date in substance, as in the older local Acts, shall be brought into line with modern needs, and into a form susceptible, like bylaws, of speedy revision in the future.

Thirdly, that the statutes affecting building be consolidated for the sake of accessibility and comprehensibility.

Fourthly, that procedure be devised, consistent with settled English modes of thought, by which I mean the paramountcy of the ordinary courts, for settling disputed points.



ENGLISH PRECEDENT No. 142

GARDEN HOUSE, CHIPPING CAMPDEN, GLOUCESTERSHIRE

This elaborate garden-house is one of two, built opposite to one another. The fancifulness of its detail is characteristic of Late Elizabethan and Early Jacobean architecture.

The primary purpose of such a building was not so much for use as to make a picturesque object of interest in the layout of a gentleman's formal garden, and, as such, perhaps its exuberance is excusable.

The faulty jointing of the stone parapets is clearly shown in a measured drawing reproduced in Mr. Gotch's "Early Renaissance Architecture in England" (page 136).

—[BASIL OLIVER]



LETTERS FROM READERS

Bungalophobia

SIR,—I was delighted to see the letter from Mr. W. Harding Thompson in your last issue. Now he has seen the point or points of the controversy. In fact he has provided me with just the information which shows that architects can, if they choose, descend to such humdrum levels and solve problems so urgent as that of bungalow design. He assures me that 1 : bungalow designs, regionally classified, have been made accessible " with partial success " in America. 2 : that " standardized buildings properly grouped and sited " have been carried out by architects for local authorities at a cost of less than £350 per house.

In other words, my suggestions in regard to bungalows have been put into operation in America, but in England the same scheme is, at present, only applied to the houses of local authorities. What reason can there be for the same scheme not being made both accessible and attractive to the individual owner or the wholesale speculative builder? For, as the local authorities have seen, the best scheme is the cheapest in the long run.

What restrains architects from applying the same measures to bungalows is, quite simply, a curious feeling of superiority which finds expression in Mr. Harding Thompson's letter in phrases like " The architect's job is to find the best solution for each individual problem," or, far more crudely and naively, in the letter from Mr. William Davidson, as " No architect of repute wishes to compete with the trade article " !

Pocket your pride, Messieurs, and get down to business. Most professions have done so. Lawyers long ago (at least in England) drove away the unprofessional practician by proper organization : doctors are busy driving the quack off the market by providing a superior thing in medical attention. Only the Church suffers quack religions to compete with her and, apparently, only architects turn away in scorn from the " ready-made article." Mr. Davidson asks me whether I can expect to get a suit made to measure at the same price as a ready-made suit. To which I can only reply that I don't want a suit made to measure. I want simply an overcoat that will fit, a hat for my head and shoes for my feet : those I invariably do buy ready-made, as do most people of slender incomes. So with my bungalow. It is to be a residence that serves its purpose, not an ideal home. And the sooner it is dealt with as are the houses of local authorities the better. But if the architects are too proud, then they should give up jeering at what they cannot supersede.

But I am sure that Mr. Harding Thompson and Mr. Davidson are not as proud as they would seem !

STANLEY CASSON

Official Architecture

SIR,—Mr. Leathart is still in need of light. He is doubtless aware that a very large percentage of private practising architects are not of his calibre. I do not say this in any spirit of jest, as the works of his firm indicate a degree of ability which, as an architect, I am capable of appreciating; but, for the same reason, I also discern that private practice is concurrently responsible for a voluminous foul torrent of rubbish which detracts from the amenities of our cities and our countryside. Seaside balustrade and bandstand architecture is invariably the product of a borough engineer or surveyor, and so has no bearing upon official architecture.

Amongst the ranks of officials and private practitioners there are, and ever will be, architects of varying inherent ability.

The reason I referred to qualified architects functioning in official capacity is because I personally have knowledge of scores of them. In the organization in which I am the senior official architect there are fourteen members of the Institute, and I have little doubt that other official architects' offices are similarly situated in this respect. These members of the Institute very naturally resent the supercilious posture of any private practising architect who essays to assume an attitude of childish jest, derision, toadyism, snobbism, or even mere stupidity, in regard to the conditions under which they select to function, or in relation to their work.

Any continuance of this correspondence would appear to be futile.

R. WYNN OWEN

[This correspondence is now closed.—ED. A.J.]

Canutism in Ireland

SIR,—I wish someone would dissuade you from your practice of publishing designs which have won public competitions. Do you realize how much you contribute to the unhappiness of the world by indulging in this unfortunate habit ?

Some person who has not yet reached the desirable state of cynicism enters for a competition, and uses up his spare time and his landlady's midnight oil in working out a careful scheme. He sends in his design. Weeks of waiting. Then, one morning, comes a letter naming the successful competitors, of whom he is not one. He is disappointed; but he is content to think that the best design has won. There is the end of the matter for him. He wants to forget about it.

But he is not allowed to forget. One Wednesday morning, a little while later, he opens THE ARCHITECTS' JOURNAL. There is the winning design. He examines it. Good God ! what is this ? He sees, say, as the writer recently saw in the winning design of a sea-front layout, that a promenade with a refreshment pavilion, kiosks, lavatories and shelters, is proposed at a level of 12 ft. above O.D. He refers to the original plan that the Corporation sent him. Yes ! High-water mark of *ordinary* tides, 14 ft. O.D. (spring tides will be several feet higher). So on an ordinary day of dead calm the refreshment pavilion and the rest are going to be 2 ft. under water at high tide ! Then he hesitates. Perhaps it is merely a small error that can be easily adjusted. He examines the winning design sympathetically. No; those levels are an essential and basic part of the scheme. There can be no adjustment. And so that costly winning design falls to the ground—or into the sea !

By publishing that design you have wrecked his happiness for a week. What can he do ? He tries hard to be a sportsman and takes refuge in cynicism. Or, being a fool and no sportsman, he writes a letter like this. Don't you see, Sir, the relation between ignorance and bliss in this connection ?

COMPETITOR

New Ways in Architecture

SIR,—In your issue for October 29 Mr. Hugh Macintosh supplies food for thought in the summary of his Croydon lecture ; decidedly, more interest in the subject is being manifested by the public.

One cannot say with conviction that the new ways and tendencies are, in many respects, leading to better architecture, or that they are enhancing the cause of architecture in the mind of the public.

The simile between architecture and music, as propounded by Mr. Macintosh, is a good one; it emphasizes a point of view which is otherwise obscured.

Several *soi-disant* musical composers feel impelled to express themselves in terms of macilent cacophony, for the edification of a coterie of cranks.

It is certainly regrettable, also, that a few otherwise brilliant architects essay to interpret in expensive building materials their own latent febrile imaginative aspirations, in order to create an illusion of slick versatility.

It must be admitted, however, that

what they achieve is like the mule—without pride of ancestry or hope of posterity.

Now, in the difference between architects and musicians lies the crux of the matter—for, whereas in the case of the musician the public need not listen—they can either stay away from recitals or switch off their wireless—in the case of the architect, his work must be seen every day in town and countryside.

There are many definitions of architecture and what it should be and express; all are variations of the general theme relating beauty to construction. It has been said that tradition in architecture has been destroyed, that modern mechanization of the building industry and fresh conquests of science are creating a " new architecture."

I am sufficiently old-fashioned to believe that tradition should be a fundamental element in an architectural composition, and should restrain the too impulsive recourse to the facile methods of modern construction and production.

This view is not to be taken for unintelligent conservatism, but rather as pointing to the *via media* between mere copyism of past styles on the one hand and meretricious " functionalism" on the other.

True architecture, after all, is not achieved in a battle of styles, but rather in quality of style.

HARRY HOLLAND

Modern Decoration

SIR,—May I make an observation on your review of *Modern French Decorative Art*? Mr. Leathart speaks bitterly of the client who " knows what he wants," and he would have the client's functions limited to paying for the job. Now, I am not quite certain about this. If only for the reason that I do not know what I want my heart goes out to the man who does; the pity is that what he wants is often so infernally bad. But cannot we, who presumably only know what we do not want, take him by the hand?

We need educated criticism badly, and when architects give a lead by frank criticism of architecture we shall begin to get a body of informed lay opinion comparable to that which existed in the eighteenth century.

The man who has spent years collecting cuttings of windows, doors, gables and other things in order to work them into his dream house is undoubtedly a nuisance, and wrecks many a promising set of drawings.

His architectural education has developed on wrong lines. But it *has* developed, and there was a time when help from the right quarter would have made him a valuable spur to the best architectural effort.

The man who writes a fat cheque for the privilege of saying that his house was built, or his room decorated, by So-and-so, is very often without any architectural education. His room may be faultless, but it often sets small store by that important item in the furnishing of any room—the owner!

GORDON RUSSELL

Daylight Illumination Data

SIR,—With reference to the articles in THE ARCHITECTS' JOURNAL of October 15 and 29 on the above subject, I am, of course, unable to add anything to Dr. Walsh's excellent description of the work in progress in his department at the National Physical Laboratory, Teddington.

I would, however, suggest that architects should realize the peculiar value to this country of a final Court of scientific appeal which is provided by the Department of Scientific and Industrial Research in its well-equipped and well-staffed laboratories at Teddington and at the Building Research Station, Watford.

Our knowledge of many subjects is overgrown with errors and prejudices, false but orthodox, which have taken such firm root in generations of textbooks that nothing less powerful than a Government department can uproot them. This is particularly true of daylight illumination.

For example, it is some five years since it was shown in a paper read before the R.I.B.A. that the value of white-glazed bricks as a panacea for the ills of overbuilding was absurdly over-estimated. Possibly very few people were impressed by that statement; some regarded it as rank heresy; others have openly derided it as mere theoretical nonsense, contrary to practical experience.

The results of the National Physical Laboratory's tests on the efficiency of light wells mentioned by Dr. Walsh were published in *Illumination Research, Technical Paper No. 11*. In this report the facts which were adduced in the R.I.B.A. paper are proved and substantiated by the most severe and comprehensive tests.

Similar corroboration of the heretical and often unpopular ideas of practitioners who think for themselves will doubtless appear in due course. I have had many opportunities of following the progress of researches at Teddington and Watford, and of studying the proofs of reports still in the Press. I can therefore without hesitation strongly advise architects to make a point of acquiring these technical papers both from Teddington and Watford immediately they are issued. They are models of terse, lucid explanation of technical details in the simplest of language, with a wealth of important and often vital information set forth in convenient and digestible form, and the price at which they are published by H.M. Stationery Office is ridiculously low.

In these hard and lean times it is not without importance that the cost of each publication is about the same as that of a packet of cheap cigarettes.

PERCY J. WALDRAM

Safeguarding Architectural Assistants

SIR,—I am desired by the Council of the Association of Architects, Surveyors and Technical Assistants to call the attention of your readers to the fact that an instance has come to light in which a large commercial firm has engaged architectural assistants on the express condition that no notice of termination of engagement is given, taken, or required.

While such a condition gives almost unlimited power or advantage to an employer, it places the employee at a grave disadvantage and is, in fact, degrading.

Those who are inclined to accept such engagements are strongly advised not to do so, as compliance with such conditions may cause subsequent regret to a bitter extent.

Assistants are invited to inform me of any attempt on the part of employers to impose such terms.

A. SEYMOUR REEVES
(SECRETARY, A.A.S.T.A.).

Spoiling the Green Park

SIR,—In his indefatigable efforts to create work Mr. Lansbury has removed a useful gate which gave access to the Green Park from the Mall, and has had it re-erected in immediate juxtaposition to the gilt-touched main entrance.

The end of the path which led to the useful gate having been obliterated, the continuation of the way is being destroyed, while a few yards distant a strenuous gang of men cuts up a wide stretch of greensward to form a straighter track to the new exit. One tree has been felled in record time. Are others to follow?

Might I suggest to Mr. Lansbury that he should seek a less disastrous field for his activities? If he set his men to cleaning the Serpentine and destroying some millions of microbes we should not grumble; but leave us our grass and trees!

E. THORNTON COOK

On Monday, December 15, in aid of the Lambeth Housing Movement, a grand " Foundation Stone " benefit performance will be given of *Paddy, the Next Best Thing*, at the New Scala Theatre, Charlotte Street, Tottenham Court Road, W.1. Tickets are obtainable, ranging from £1 1s. to 1s. 2d., from Miss L. A. Shaw, 63 Lincoln's Inn Fields, W.C.2.

IN THAT CONTINGENCY

The following abstracts of inquiries are representative of a number of those recently submitted to the Building Research Station, and their replies thereto.

Failure of Plaster Ceiling

A CONTRACTOR reports: A ceiling has fallen down, the plaster having broken away from the laths.

The materials used for "pricking" up and floating were grey hydrated lime and sand, and the finishing coat white hydrated lime, all used to maker's specification. A small sample of the broken ceiling was enclosed.

Reply: From a superficial examination, the material comprising the first coat appears to be rather weak and friable, the second and finishing are appreciably harder. The material contains a fair proportion of hair, although the quantities usually specified are too small to make this point significant.

It is to be regretted that it is not possible to obtain definite information as to the cause of failure, in cases of this kind, by chemical analysis of samples which have been exposed to the atmosphere for some time. At the best, analysis would only give a rough indication of the mix used and no definite information regarding the quality of the materials used could be obtained.

From a number of cases reported to us we conclude that manipulative errors are largely responsible for failure of this type of plasterwork. The most common faults are probably the use of air-slaked and partially carbonated lime, and the lack of thorough knocking up and subsequent trowelling, which are traditionally required for the best class of work, and which are as important with a hydrated lime as with lime putty.

Failures have been reported to us where sound materials appear to have been carefully applied by skilled operatives. It has to be borne in mind, however, that at the best, lime plaster has low strength at an early age, and the process of hardening is very slow; if the material is disturbed in any way by movements in the structure, such as warping or shrinking of the laths or joists, this, together with shrinkage of the plaster itself, may give rise to failure.

Heat Insulation

A manufacturer requires data regarding the insulating values of various types of bricks, including cement-sand bricks.

Reply: There are no figures for the thermal conductivity of individual bricks available in our records, but the following values may give some indication of the relative merits of clay, brick walling and cement products. It should be noted that variations in the properties of the materials such as density, porosity and moisture content will give different values from those quoted.

Material.	Thickness. Ins.	Thermal conductivity B.Th.U. per sq. ft. per hour for 1° F. difference in temperature between faces.
Walls.		
London stock bricks in cement mortar	9	0·68
Flettons in cement mortar	9	0·70
Sand lime bricks in cement mortar ..	9	1·03
Concrete.		
Granite (to pass ½-in. sieve) 4--cement 1	9	0·57
Sand 4--cement 1 ..	9	0·41

Wall Boards

A Government Department asks for general information on the use of wall boards as plaster substitutes.

Reply: In the light of our present knowledge, wall boards may be divided into three categories:

(1) Boards of fibrous composition: (*a*) Sold with special claims for heat insulating and sound absorbent properties; (*b*) Sold with the main object of lining in view. These have similar properties but are often thinner than type (*a*).

(2) Plaster boards intended for use under a finishing coat of plaster.

(3) Plaster boards jointed with plaster for use without plaster finishing or cover fillets for fixing.

Boards of type (1) are liable to moisture movements (i.e. shrinkage on drying and expansion on wetting) comparable with wood and, therefore, under ordinary circumstances the joints must be covered with wooden fillets in order to accommodate such movements. They vary in this respect, but there is not a great deal to choose between them. They require a system of battens for fixing and are unsuitable for use where damp conditions are likely to arise. They are liable to injury by rough usage, but possibly not more so than lime plaster. The manufacturers of certain boards of this kind claim that they may be used as a base for plaster with special precautions for jointing, such as the embedment of a strip of wire mesh along the joint. This would probably be satisfactory in the case of a studded internal partition, but we should be doubtful whether it would make a sound job where applied close up to a solid external wall, which might become damp by moisture transmitted by capillarity from the exterior.

Boards of type (2), being composed essentially of gypsum plaster, are not liable to moisture movements of magnitude comparable with those of the fibrous materials, and have been on the market for a sufficient length of time for a fair amount of experience to have been gained in their use. When finished with a good quality plaster, they make a satisfactory job.

Boards of type (3) consist of high grade gypsum plaster base material, between sheets of heavy felted paper. We have examined ceilings over periods up to three years, which have developed no cracks when fixed to ceiling joists, the joints being filled with the maker's special gypsum plaster.

Failure of Tiled Floor

School Authorities report the failure by buckling of the tiled floor in the entrance hall. They require an examination to be made and an explanation of the causes of failure.

Reply: An examination was made of the tiled floor of the entrance hall of the school, which had failed by loosening and buckling of the tiles.

Failures of this kind are not uncommon, and a number of similar cases have been brought to our notice.

The present appearance of the floor suggests that failure has been caused by shrinkage of the concrete filler-joist floor beneath. The shrinkage of the concrete floor has probably been increased by the heat derived from the heating plant in the basement directly below. The buckling is due to the fact that whereas concrete shrinks appreciably on drying out, a well-burnt clay tile does not exhibit any considerable movement.

It is not possible to state whether the full shrinkage of the floor has yet taken place, but, as the floor has been subjected to drying conditions for several seasons, it seems reasonable to suppose that it has. In these circumstances it would appear justifiable to relay the tiles.

The rather large variations of humidity and temperature between summer and winter to which a floor between an entrance hall and a basement in which heating apparatus is installed, must always militate against the soundness of tiling. The maximum length changes due to these variations, however, will be much less than the initial drying-shrinkage of the concrete, which appears to be complete or closely approaching a limit.

It has to be borne in mind that this floor is subdivided into a number of small units by shrinkage of the concrete, and there must be some possibility of cracking of the tiling by any subsequent movements.

THE SKETCH CLUB

SIXTEENTH SESSION

For the present session, another, and this time a final, selection has been made from among the hundreds of drawings sent in by entrants for the three recent Holiday Sketches Competitions. Indeed the hanging committee may now claim to have found space (however inadequate in some cases) for practically every subject deemed likely to be interesting and intelligible to others besides the individual sketcher. Readers who are also sketchers are invited to submit material for future reproduction.



By J. Fenton Wyness
(Watercolour : 4½″ × 6¼″)
Craigievar Castle, Aberdeenshire.



By Stuart Bentley
(Watercolour : 8¼″ × 9¼″)
Bootham Bar, York.



By J. C. Robinson
(Watercolour : 9″ × 12½″)
La Rue du Petit Port, Dinan.



By H. M. Luyken
(Crayon : 8″ × 6¼″)
Houses in Warwick.

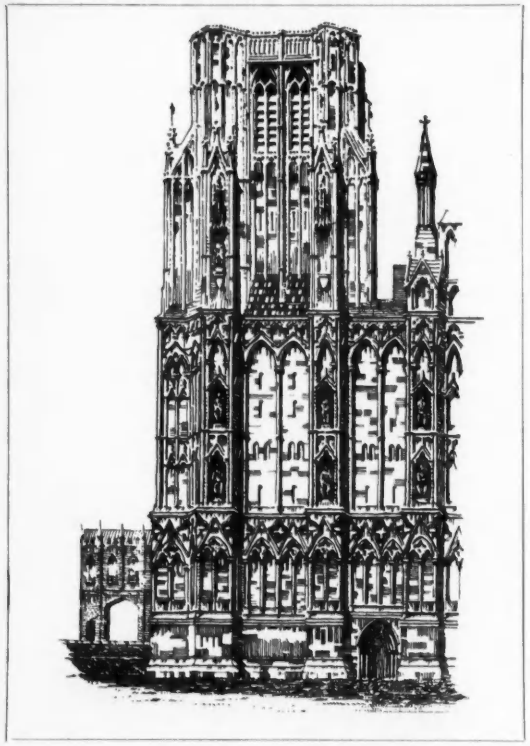


By J. C. Robinson
(Watercolour : 14¼″ × 10¼″)
The Old Bridge, Dinan.

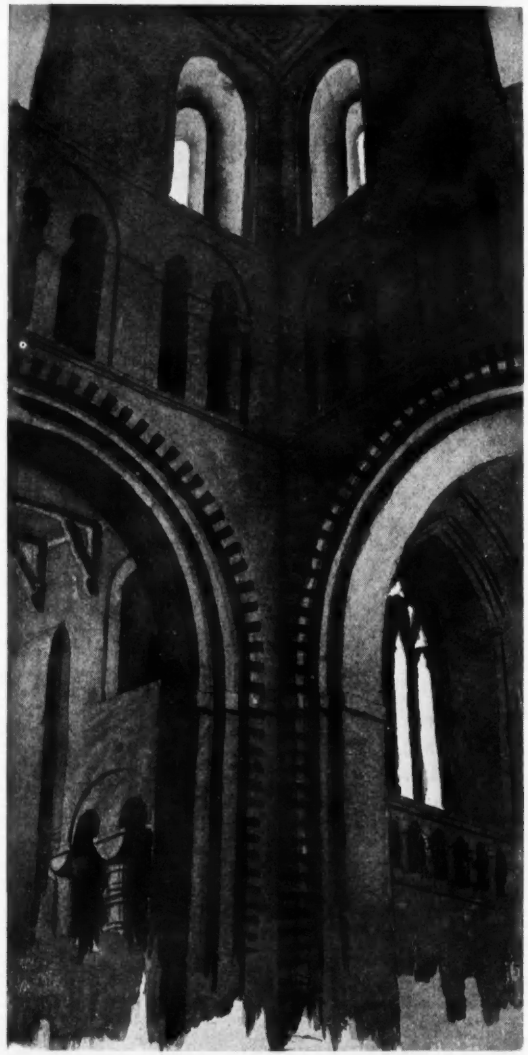








By F. Austin Child
(Pen and ink: 5¼″ × 9¼″)
Wells, the N.W. Tower.



By Peter B. Dunham (Sepia : 7″ × 14¼″)
Crossing in St. Alban's Abbey.



By Charles C. Spence
(Pencil : 10¼″ × 14½″)
Saint Andrea, Mantova.



By F. Palmer Cook
(Crayon : 12½″ × 9″)
The Pier, Lynmouth, Devon.



By John H. Harvey
(Watercolour : 9½″ × 7½″)
Bayeux Cathedral from the South.

HOUSE AT TARRING

DESIGNED BY TATCHELL AND WILSON

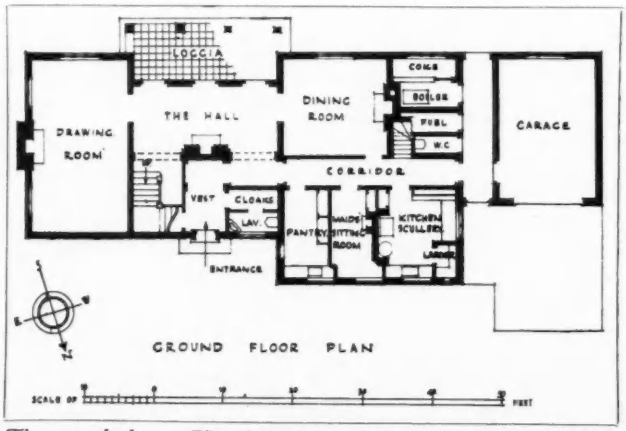


The southerly front; a view from the garden, showing the loggia, with balcony over, facing the central garden pool and fountain.

MARLPOSTS, Tarring, near Worthing, is built on a site which in early times formed part of the Manor of Marlposts and Ferring, Sussex. Situated as the building is within a short distance of the sea, special care was taken in the construction of walls and roof. Daneshill facing bricks were used and a cavity (filled with hygeian rock composition) was formed in the thickness of the outer walls from foundations to roof plate. Tiles were used in roofing.

In the southerly or garden front a large loggia on the ground floor, with a wide balcony at first-floor level, makes an attractive central feature. This looks over the pool and fountain, with surrounding paved walks, at the focal point of the garden layout, which was also designed by the architects.

Inside the house, too, there is a centre of interest in the hall, planned *en suite* with dining- and drawing-rooms, and with two arched openings, one of which leads to the staircase. The service quarters are a compact and isolated unit, and a garage, facing onto a yard, is built into the fabric of the house.



The ground plan. The determining factor was the central hall, connecting on either hand with the dining- and drawing-rooms.



The stairs, with windows on half-landing, seen through one of the hall archways.



The hall. The windows overlook the loggia. A glimpse of the dining-room is seen through the open door. The stairs lead up beyond the right-hand archway.

LITERATURE

TWENTIETH-CENTURY SCULPTORS

MR. CASSON deserves well of architects because he does what they should themselves do. Bearding the sculptors in their dens, and provoking them into speech, he has achieved at a total sacrifice of critical imperturbability, something of the sculptor's point of view.

There are two things today that should be giving architects a great deal of thought. One is the job of getting painting out of the frame and *into* the building; the other is the equally important job of getting sculpture out of the gallery and *onto* the building.

Neither of these will become possible until both painting and sculpture, and painters and sculptors, are understood. We have just emerged, as well we know, from a period of architecture in which sculpture, though treated according to the best canons of professional rectitude, has come to lose all significance. From this degeneration we have tended towards the opposite extreme that would eschew all sculpture. Thought clarifies but slowly; we are, it seems, still in the midst of what Geoffrey Scott called the mechanical fallacy; but when we have designed horizontally or vertically, according as we are told to look along girders or up stanchions, we will once again take control of the situation and become humanists. Then we shall need sculptors. In the meantime, there may be salvation to seek in the problems which sculptors themselves have solved or are solving.

Standing before a good work of sculpture there is not much one can say of it that is not three parts eyewash and of little use to the better understanding of it. On the other hand, there is a great deal that can be said both of the man that did it and of his methods of doing it. If Edwardian sculpture was in the main bad, that is the end of it so far as it affects us as we stand before it. But to know how it was made, and in what surroundings and circumstances, gives reasons for distaste, and the beginning of a critically selective taste.

In the same way taste will enable us to say with some certainty what is good, but only a knowledge of material and methods of working, and the circumstances of the work, will enable us to appraise it. And only the widespread acquisition of this knowledge will generate an atmosphere sympathetic to the production of good sculpture.

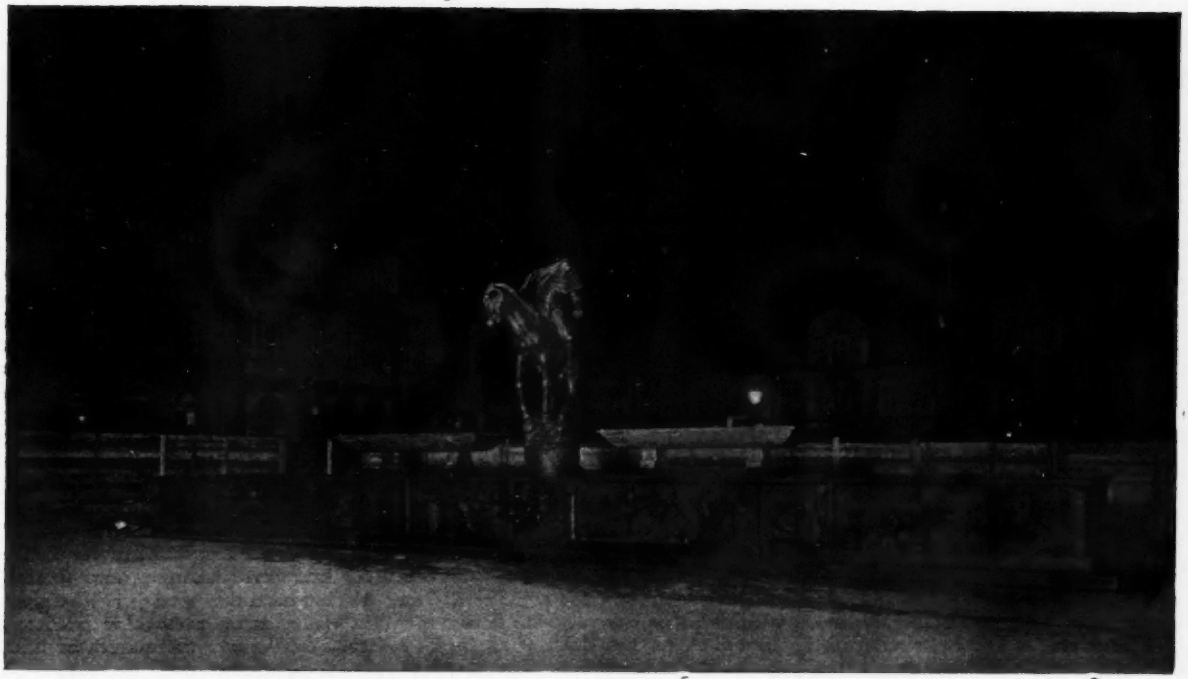
Mr. Casson holds sculpture to be pre-eminently the art of the open air, and at its best in association with the architecture of cities. When the work of Carl Milles is understood in relation to its setting who can disagree with him? The one barrier against the revival of sculpture for civic adornment is the badness of it in the past; the one hope for the future is the recognition of what constitutes its goodness. Here it is that I would make a very earnest recommendation to every architect who enjoys architecture to read Mr. Casson's book, for he has got nearer to the truth of the tremendously important matter of sculpture and architecture than any other writer on the same subject. One is reminded of Lessing, in content, if not in style. E. M. F.

XXth Century Sculptures. By Stanley Casson. London: Oxford University Press. Price 9s. net.

THE BIRMINGHAM CIVIC SOCIETY

IN the last annual report of the Birmingham Civic Society, just issued, it is stated that the gold medal of the Society has this year been presented to the Hon. Lady Anstruther-Gough-Calthorpe, D.B.E. The award has been made in recognition of the great æsthetic value to the city of the policy established and maintained in developing the Edgbaston estate, and also in appreciation of the generous gifts made by her from time to time towards the increase of amenity in Birmingham. Lady Calthorpe succeeded to the Calthorpe estate on the death of her father, the sixth Baron Calthorpe, in 1910, by whose family it has been owned for upwards of two hundred years. This is the tenth year in which the gold medal has been awarded, the past recipients including Sir Barry Jackson and the Rt. Hon. Arthur Neville Chamberlain, M.P.

Many matters have occupied the attention of the Society during the year :



From XXth Century Sculptures.] [*By Stanley Casson.*

Bronze fountain and water trough of Folke Filbyter Linkoping, by Carl Milles.

their special knowledge of printing and book production has been utilized by the Chamber of Commerce in the newly-published official Birmingham guide; they were of great assistance in obtaining a considerable modification of the original drastic proposals for the reduction in the musical staff of the Birmingham (5 GB) studio; they have collaborated from time to time with the City Parks Committee; prepared a garden scheme for the Douglas Haig Memorial Homes at Billesley Common; and have assisted in the formulation of a consultative committee to develop social facilities on the new housing estates. Action is also being taken in a great variety of other affairs, such as litter, road signs, and municipal recreation.

It can readily be seen that much of the best work of the Society must be of a strictly confidential nature, and that privacy must be a condition of its performance. However, the evidence submitted in the report of matters no longer confidential more than justifies the existence of this live Society.

The Report of the Birmingham Civic Society. C. G. Robertson, chairman; William Haywood, hon. secretary, 37 Bennetts Hill, Birmingham. Price 1s. 6d. net.

Publications Received

Our Cities of Today and Tomorrow. By Hubbard and Hubbard. Harvard University Press. Price $5.00.

Modern Sewage Disposal and Hygienics. By S. H. Adams. London: E. and F. N. Spon, Ltd. Price 25s. net.

Neuzeitliche Hotels und Krankenhäuser. By Hermann Gescheit. Ernst Pallak.

History of Everyday Things in England, 1500–1789. By M. and C. H. B. Quennell. London: B. T. Batsford, Ltd. Price 5s. net.

Surveying for Schools. By S. Wright Perrott. London: Chapman and Hall. Price 6s. net.

ACOUSTIC CONSTRUCTION

BY C. W. GLOVER

The author, in a paper on "The Acoustics of the Sound Film Studio," read before a meeting of the Society of Motion Picture Engineers on Monday of last week, reviewed at large the problems confronting the acoustic engineer. Below are summarized points of particular interest regarding sound-proof floors, doors, and windows.

FLOORS

IN the case of floor construction, not only do we have to deal with airborne sounds, but contact noises produced by vibration communicated directly to the structure are introduced. It is quite certain that the important points for the prevention of sound transmission through floors are:

(1) A floating floor isolated from the walls.
(2) An isolating material of non-homogeneous nature between the floor covering and the floor proper.
(3) The floor proper; and
(4) A suspended ceiling.

These are required to prevent actual mechanical vibration, such as footsteps, from being transmitted from the room above to the room below.

DOORS

The illustration on the facing page shows typical details of sound-proof doors. The provision of elaborately padded and even expensively upholstered doors has not been uncommon in the past, it being generally assumed that the absorbent surface assists in the prevention of transmission of sound.

For certain reasons a highly reflecting surface is really preferable, provided the door itself is laminated in construction, with sound-absorbent materials embodied in the interior.

Experiments have proved that as much as 17 per cent. of sound transmitted through a closed door can be eliminated by the mere provision of caulking round the edge, and it will be readily appreciated that an expensive sound-proof door may be little short of useless if it is not made a good fit.

It may generally be taken that for adequate sound insulation a sound-proof door should be reasonably airtight when closed, and the details shown on the accompanying illustration indicate a means of effecting this.

Automatic felt plungers fixed to the bottom of the door seal the opening under the door when closed, though if conditions of the installation permit, it is better to provide a step at the doorway so as to get a more effective seal. Round the jambs rubber gaskets are fixed and the door, provided with a strong three-lever door handle, presses hard upon its seating and forms an effective seal.

It is, of course, not possible to provide the equivalent of thick, massive walls or a structure with isolated surfaces without physical contact between them and at the same time provide a door which will be easy of operation.

Detail A on the illustration shows a single sound-proof door which would be suitable for domestic or hotel work. This door is constructed of metal-faced plywood on both sides, screwed to wood fibre boards attached to a timber frame, the interior of which is loosely filled with two layers of eelgrass quilt. Between the plywood and the fibre board, and the fibre board and the frame, a layer of thin felt is used to break structural contact as much as possible. Metal-sheathed moulding planted on to the outside of the door can be used with advantage to form any panelled effect required.

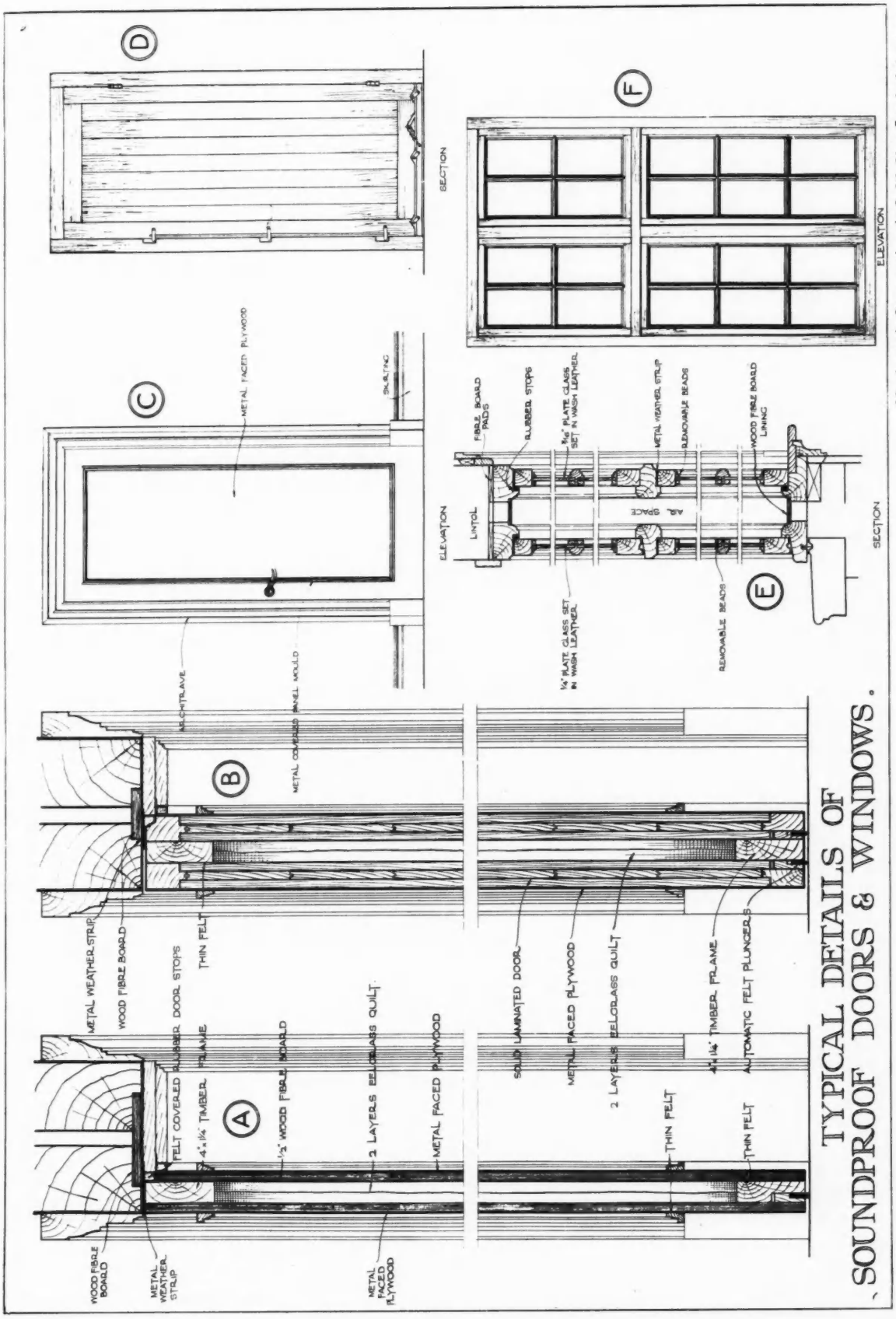
If doors made to detail A are used in highly damped rooms, a curtain should be hung over the door opening on the inside of the room, otherwise the sound energy condition of the room is likely to be altered.

Detail B shows an improved construction of sound-proof door, which, under normal circumstances, may be considered to have a reduction factor of 35 sensation units. In this door a timber frame, filled loosely with two layers of eelgrass quilt, is covered both sides with solidly-built laminated doors. These latter are square framed, and filled with G. and T. boarding in three layers, laid cross-grain, with the object of obtaining maximum rigidity. To each outer face metal-covered plywood is applied, and felt is used as before to separate each unit of the construction. Flexible metal weather strips serve to improve the fit of the door, and should be installed when the highest efficiency is of importance.

The provision of glazed openings in these doors should be avoided as far as is possible, but, if required, these should be constructed on the lines laid down for sound-proof windows. When installing door frames in sound-proof walls and partitions, care should be taken to insert felt or the like insulator between the frame and the wall, and, in the case of linings to door openings, fibre boards or divided linings with felt strip should be used. Doors of this type also have very high heat insulation and fire-resisting qualities.

WINDOWS

Details E and F on the illustration show what is, in my opinion, the best type of sound-proof window. Two independent frames, set in the window opening with fibre-board pads, are connected only with a wood fibre board lining, so that the physical contact between the two sides of the window is made less rigid. Casement-type windows are indicated on the detail, each side opening outwards and provided with weather strips, rubber gaskets, etc., so as to provide facilities for occasional cleaning, and to render them reasonably airtight. The glazing is best fixed in removable beads; the glass on the one side should be thicker than on the other in order that both sides of the window will not tune in together.



[*See* Acoustic Construction, *by C. W. Glover, on the facing page.*

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Steel for building purposes

MORE use of steel for building purposes was advocated in a debate in the House of Commons by Miss Wilkinson, the Labour member for East Middlesbrough, who said that they needed to get rid of the antiquated building restrictions which were preventing the use of steel. There was a ridiculous case of a large building not far from that House, costing many thousands of pounds, where, because of the antiquated regulations of the London County Council, the top story could not be used. No one could suggest that it was not as safe as any other story, but it did not happen to fit in with the specific regulations which were framed with no idea of the use of steel in that building. If they had a national board, speaking on behalf of the whole industry, they could deal with public departments in a way that the individual steel manufacturers could not do. They must get rid of the system under which architects, decorators and furnishers clung to the idea that there was something sacred in the use of wood, and that steel was a thing with which only Bolshevists would have anything to do. Some new designs in steel furniture might well be considered by the steel trade. France was far in advance of this country in the use of steel for home and office furniture. The steel industry made a very great mistake when they linked up the idea of steel houses with the idea of a lower rate of wages for the workmen. People would not look at steel houses because they meant lower wages.

The Government spokesman, Mr. W. R. Smith, welcomed Miss Wilkinson's suggestions, which, he said, were very useful, and might be followed up as a means of bringing more men into the industry.

Private architect for Government buildings

Mr. Lansbury, the First Commissioner of Works, told Captain Balfour that, whilst it had been decided that the design for the proposed Government offices in Whitehall would be entrusted to an architect in private practice, the precise method of selection had not yet been settled.

Educational buildings

Sir C. Trevelyan, President of the Board of Education, informed Major Edmondson that the advice of the Board's architects' department and of His Majesty's inspectors was at the disposal of local education authorities which were contemplating the erection of new school buildings at all stages, from the inception of the project to the final approval of plans. It was the Board's practice to approve in principle the erection of a new school prior to the submission of finished plans, but their final sanction was dependent on their approval of such plans.

Cost of houses

Mr. Greenwood told Sir K. Wood that the average cost (excluding the cost of land, roads and sewers) during the period from January 1 to September 30, 1930, was for non-parlour houses £337, and for parlour houses £405.

Housing progress

At question time Sir K. Wood asked the Minister of Health if he would give the number of houses finished under the various Housing Acts each quarter since June, 1929; and the number of houses during the same period erected without State assistance.

Mr. Greenwood said that the following statement gave the desired particulars so far as State-assisted houses in England and Wales were concerned :

Quarter ended	Number of State-assisted houses completed during the quarter under the		
	Housing, Town Planning, etc., Act, 1919.	Housing, etc., Act, 1923.	Housing (Financial Provisions) Act, 1924.
Sept. 30, 1929	18	39,227	17,730
Dec. 31, 1929	14	—	14,507
Mar. 31, 1930	—	—	10,571
June 30, 1930	—	—	11,351
Sept. 30, 1930	—	—	14,881

Returns as to houses erected without State assistance were obtained half-yearly only, to the end of March and September respectively. The number of such houses of a rateable value not exceeding £78 (or £105 in the Metropolitan Police District) erected during the six months ended in September, 1929, was 38,298 and during the six months ended in March last 53,393. Complete figures for the six months ended in September last were not yet available.

In reply to a further question by Sir K. Wood, Mr. Greenwood said that during the period June to September, 1930, 1,204 houses were completed by the L.C.C., ninety-three by the Metropolitan Borough Council of Poplar, and eight by the Metropolitan Borough Council of Lambeth.

Sir K. Wood asked for the number of houses erected in each month during 1930 in agricultural parishes in England and Wales under the Housing (Financial Provisions) Act, 1924.

Mr. Greenwood said that the following statement gave the desired particulars :

Month.	Number of houses completed in agricultural parishes in England and Wales under the Housing (Financial Provisions) Act, 1924, during the month.
1930	
January	195
February ..	118
March	199
April	128
May	199
June	171
July	198
August	287
September ..	525

Mr. Greenwood informed Sir K. Wood that at June 30, 1930 (the latest date to which complete figures were at present available), seventy-one slum clearance schemes remained to be completed in England and Wales. Two such schemes were completed between March 31, 1930, and June 30, 1930, and none were confirmed during that period.

State-assisted dwellings

Mr. Wellock asked the number of dwellings completed with State assistance under the Housing Act of 1924 in England and Wales during each month from October, 1929, to September, 1930, inclusive, and the total number of dwellings now under construction under the same Act.

Mr. Greenwood replied that the following statement gave the information asked for in the first part of the question :

Month.	Number of houses completed during the month in England and Wales under the Housing (Financial Provisions) Act, 1924.
1929	
October ..	6,278
November ..	4,555
December ..	3,674
1930	
January ..	3,073
February ..	4,009
March	3,489
April	3,038
May	4,377
June	3,936
July	4,669
August	4,571
September ..	5,641

The total number of houses under construction in England and Wales under the Housing (Financial Provisions) Act, 1924, at September 30, 1930, was 37,359.

Mr. Greenwood informed Sir K. Wood that the number of State-assisted houses completed between January 1, 1921, and September 30, 1930, was 949,451.

Mr. Greenwood informed Sir K. Wood that up to the end of June last, the latest date to which complete information was at present available, assistance had been promised under the Housing (Rural Workers) Act, 1926, in respect of 3,308 dwellings in England and Wales, work had been finished on 2,206 dwellings, and was in progress at that date on a further 818 dwellings.

Direct labour schemes

Sir K. Wood asked the Minister if he would state the average price of non-parlour and parlour houses, respectively, included in contracts let by or in direct labour schemes of local authorities in England and Wales during each month since May, 1930.

Mr. Greenwood said that the following statement gave the desired particulars (excluding the cost of lands, roads and sewers) for each month from June to September, 1930, inclusive :

Month.	Non-parlour Houses.	Parlour Houses.
	£	£
June, 1930 ..	339	403
July, 1930	333	392
August, 1930 ..	341	401
September, 1930 ..	347	410

Sir K. Wood asked the Minister if he would state the average superficial area of A-type non-parlour houses included in contracts let by or in direct labour schemes of local authorities in England and Wales during the years 1928, 1929, and 1930, respectively.

Mr. Greenwood said that the average superficial areas were, in 1928, 762 sq. ft.; in 1929, 766 sq. ft.; and during the nine months from January to September, 1930, inclusive, 763 sq. ft.

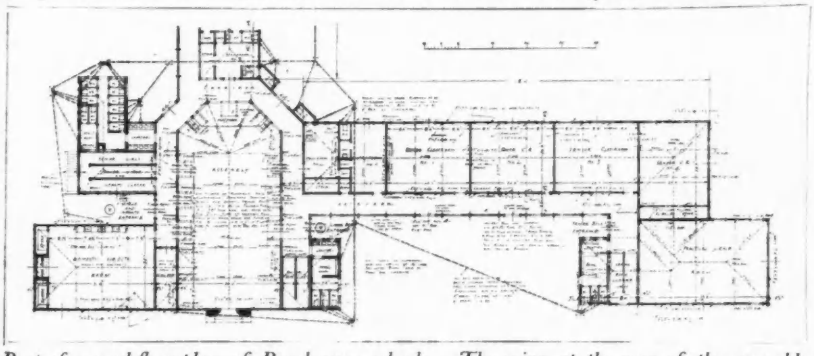
Town-planning schemes

Mr. D. G. Somerville asked the Minister of Health if, in the different town-planning schemes submitted to him, he was giving full consideration to the objections, properly formulated, of residents who considered that the proposals affected the amenities of the district in which they lived, and whether an inquiry was held in all such cases.

Mr. Greenwood said that the answer to both parts of the question was in the affirmative. The permission of development while a town-planning scheme was in course of preparation, however, rested with the local authority concerned, and there was no appeal to him against the granting of such permission. He had recommended local authorities to ascertain and consider the representations of persons likely to be seriously affected by any proposed development before granting permission for it, and he believed that local authorities generally observed the spirit of his recommendation.



A perspective sketch of the proposed Church of England Schools, Broxbourne, to be erected from designs by R. J. Hugh Minty. The building will comprise junior and senior departments. The funds have been raised entirely by local subscription.



Part of ground-floor plan of Broxbourne schools. The wing at the rear of the assembly hall continues for about 125 ft. and comprises, in addition to the staff room shown, four classrooms. The grounds, apart from the playground, are to be laid out for football, cricket, hockey and basketball pitches.

SOCIETIES AND INSTITUTIONS

MANCHESTER SOCIETY OF ARCHITECTS

THE profession of architecture was passing through a time which was critical but full of promise, said Mr. J. T. Halliday, F.R.I.B.A., in his presidential address to the Manchester Society of Architects, last Wednesday. He continued by saying that after nearly thirty years of controversy, the Bill for the registration of architects, which passed its second reading recently, would put the profession on a sound and reasonable basis. In future the public would be able to distinguish between incompetent and unqualified persons and those who had qualified to the extent required to earn a place on the register. It would then rest largely upon the intelligence of the general public whether they continued to employ men without taste or training.

In many directions, he pointed out, the R.I.B.A. and the allied societies were endeavouring to raise the standard of architecture. A scheme was being worked out by which speculative builders, who were at present building thousands of houses of a type which was apparently imagined to supply a long-felt want, but which were the butt of everyone's criticism, would be able to avail themselves of designs prepared by architects without the expense of employing an architect in his full professional capacity.

R.S.A. INDUSTRIAL DESIGNS COMPETITION

Some candid comments on the conditions of modern industrial production were made by Professor Richardson at the Royal Society of Arts, last Wednesday, in reviewing the designs submitted in the R.S.A. Industrial Designs Competition. Much of the work of art today, said he, such as toy sculpture, pretty painting, loose carving, odd stuffs and grotesque pottery, was due to lack of taking pains on the part of the artist, to the greed of manufacturers, to the apathy of the general public who followed fashion as sheep followed the butcher to the slaughterhouse, and to the general chaotic conditions.

Lord Stanmore, C.V.O., presided over a large audience, composed chiefly of students.

Professor Richardson, before commenting on the prize-winning designs, said that young craftsmen no less than manufacturers should learn that conscious art was not always desirable. There were times when the spirit of art should not be degraded—times when art was not required. Of late years we had come to recognize the fact that the products of the Middle Ages and the Renaissance possessed a quality which we admired and, at the same time, despaired of recovering. The quality would never be recovered until we tackled our problems anew. Modernism aimed at sweeping the past into the limbo of things to be forgotten. It was symptomatic of democracy and the triumph of the machine. If modernists could build up a new beauty, a new perception of rightness in all works of the mind and the imagination, they would be certain of success. But modernism, unfortunately, was another name for fashion.

The average modernist, he continued, seeking notoriety, was apt to disregard proven materials. He juggled with form and experimented with the abstract, hoping that something would arise; and something did arise, but not art. Modernism was not lightly to be disregarded; at present its tenets were half-truths, and that was where the danger lay.

In Germany, where much had been done to foster the new movement, a sort of formula had been evolved for dehumanized building in which direct expression of function was dominant. The factory or machine-shop style was one of the important contributions. In France the liner or the aeroplane style had been developed. America had made vertical advances in the ziggutrat style. Some adventurers in England compromised between all three.

His point in this particular regard was that the arts take their tone from architecture. Because a sort of cubism was the fashion in architecture, sculpture followed suit, and so on, and so forth. But such experiments did not deceive those thinkers who advocated grace in building. No doubt time would bring its compensations; bastard engineering would in turn give place to a revival of building in which materials would be treated logically and without affectation.

If ever the day came, he said, when architectonic qualities were ignored, useless as they might be from a practical standpoint, then architecture would cease to be a fine art. This was very nearly the case today. A work of art must be the product of a controlling mind.

By the aid of lantern illustrations of the prize-winning designs, Professor Richardson was able to offer constructive criticism of the work.

He hoped that when the terms of the 1931 competition were published the instructions to the competitors would be a little more explicit than in the past.

WEST YORKSHIRE ARCHITECTS

"The Englishman does not know what he wants, he does not know what he has lost; but in a confused sort of way he recognizes that he can never have wanted what he has got." The foregoing remarks from *The English Secret* formed the keynote of Mr. Norman Culley's presidential address to the West Yorkshire Society of Architects. Environment, he said, constituted the great ill or many of the ills under which present-day civilization suffered.

Referring to the Town Planning Act, he remarked that great roads had been constructed under the Act to take the heavy modern traffic. They might have been parkways had sufficient land been taken on either side. On these roads modern petrol buses run, and, as someone had said, make fortunes by taking people farther out, and who go farther out in the hope of escaping the noises which the very buses themselves make.

The people taken farther out, desirous of enjoying the amenities of the countryside, were assisted by the Government subsidy to the erection of a bungaloid or other jerry-designed growth, the work still of the speculative builder and the untrained, uncultured jerry draughtsman, under the benevolent auspices of municipal authority, thus spoiling the amenities of the countryside even for others who desired to do likewise.

One was prompted to the thought that with no radical difference in constitutions of local authority, English towns and cities could not be made beautiful by Act of Parliament alone, neither could Act of Parliament alone prevent the desecration of the countryside. There must be education, and there must be employment of architects and architectural control of architecture. Matters could be much improved if all plans submitted to local authorities had in all cases to be over the signature of a practising architect.

Mr. J. E. Stocks, proposing the vote of thanks, said that undoubtedly the exodus from the towns was destroying the amenities of the countryside.

In seconding the vote, Mr. J. F. Walsh considered that architects generally were far too modest in not putting forward their claims to execute departmental work; and to blame for not ensuring that, when such commissions did come their way, that their names were mentioned in press reports referring to such buildings.

THE RATING AND VALUATION ACT

The defects in the Rating and Valuation Acts of 1925 to 1928 were dealt with by Mr. Michael Faraday at a meeting of the Auctioneers' and Estate Agents' Institute held at the Society's headquarters, Lincoln's Inn Fields.

The lecturer said that an amazing anomaly arose out of the fact that, in the erection of a house, clay was converted into bricks and the brick kilns were rateable, while the process plant or machinery in connection with the conversion of wood into joists, beams, doors, and window frames was exempted.

He thought that it might have been in the minds of the compilers of the Act that all types of buildings should be assessed, and therefore the words "in the nature of a structure" found their way into the Act, but if process plant was to be exempt, it should be the process plant of all trades and not the process plant of some only.

GOTHIC ARCHITECTURE

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts on Wednesday last, continued from his previous lecture the study of Gothic architecture in Italy.

He pointed out that throughout the independent cities of Central Italy in the thirteenth century the unfamiliar Gothic style from the north was accepted in a half-hearted manner. The restlessness of this northern art did not appeal to Italians, who loved repose in line and design, and during the whole mediæval period it failed to capture the true spirit of northern Gothic.

AUSTRALIAN STUDENTS' CLUB

A club for Australian architectural students has been formed in London for the purpose of facilitating study both in England and on the Continent. The Club meets at intervals, when matters of interest are discussed for the mutual benefit of the members. All Australians are invited to join, and further particulars can be obtained from Mr. Eric Garthside, Hon. Secretary of the Club, 6 Alberos Gardens, Golders Green, London, W.N.11.

RALPH KNOTT MEMORIAL FUND

As a result of the appeal for the above fund, donations amounting to just over £1,040 were received, and the Council of the Architectural Association appointed the following committee to deal with the matter: Messrs. Robert Atkinson, F.R.I.B.A., W. Fraser Grainger, F.R.I.B.A., Maurice E. Webb, F.R.I.B.A., and F. R. Yerbury, HON. A.R.I.B.A.

The L.C.C., having contributed a sum of £250 to the fund, have appointed Mr. Ronald P. Jones, F.R.I.B.A., to serve

as its representative on the committee.

Following is a list of donations which have been given; as the fund is still open, further donations may be sent to Mr. F. Yerbury, Hon. Secretary of the Fund, Architectural Association, 36 Bedford Square, W.C.1. :

	£	s.	d.
Alexander, George	50	0	0
Allen, Arthur F.	2	2	0
Ames and Finnis	10	10	0
Anonymous	16	10	0
Architectural Association	21	0	0
Architectural Association (Contribution from Bernard Webb Legacy)	228	8	1
Architectural Association Staff	10	10	0
Architectural Association of Ireland	2	2	0
Art Pavements and Decorations, Ltd. (The)	1	1	0
Atkinson, Robert	10	10	0
Baker, H. E.	2	2	0
Bates, Edward	5	5	0
Blaikie, John and Sons, Ltd.	5	5	0
Burton, R. R.	1	1	0
Collins, E. Stone	21	0	0
Cooper, Sir E.	3	3	0
Dawber, E. Guy	5	0	0
Denington, J. W.	1	1	0
Diespeker & Co., Ltd.	1	1	0
Drysdale, G.	2	2	0
Elcock and Sutcliffe	3	3	0
Farey, Cyril A.	3	3	0
Farquharson, Mrs. Horace	5	5	0
Farquharson, J. F.	2	2	0
Fleming, Owen	0	10	6
Gallannaugh, B. W. L.	0	10	6
Gillet and Johnston	2	2	0
Granger, W. F.	5	5	0
Griffiths, S.	5	0	0
Haden, G. N., and Sons	5	5	0
Hall, E. Lawrence	1	1	0
Harris, E. Vincent	50	0	0
Henniker, F. S.	5	5	0
Hett, L. K.	1	1	0
Harvey, C.	10	10	0
Higgs and Hill	10	10	0
Holland & Hannen and Cubitts, Ltd.	105	0	0
Hope, Donald	10	10	0
Hope, Henry, and Sons	10	10	0
Jefford, W. L.	1	1	0
Jerdan, J. (Mrs.)	5	5	0
Jerdan, John	5	5	0
Joass, J. J.	3	3	0
Judge, Col. W.	2	2	0
Knott, Clifford J.	5	5	0
Laurie, A. M.	1	1	0
Leathart, J. R.	5	5	0
London County Council	250	0	0
Longden, R. T.	1	1	0
Mann, C. H. Adolph	1	1	0
Maufe, Edward	1	1	0
Maufe, Prudence	1	1	0
Milne, O. P.	5	0	0
Montgomery, H. Greville	2	2	0
Orr, A. J.	1	1	0
Pearson, J. R. (Birmingham), Ltd.	3	3	0
Raphael, Geoffrey G.	1	1	0
Raphael, J. H.	1	1	0
Roberts, Brian S.	5	5	0
Robinson, J. J.	1	1	0
R.I.B.A.	25	0	0
Stone, Edward E.	5	5	0
Sullivan, L. Sylvester	10	10	0
Sturdee, Thomas P.	3	3	0
Tanner, Henry	1	1	0
Tapper, Walter	5	5	0
Tatchell and Wilson	2	2	0
Waldram, Percy	1	1	0
Webb and Sons, Sir Aston	31	10	0
Webber, E. Berry	5	5	0
Welstead, Ltd., C. E.	5	5	0
Wilshere, R. S.	0	10	6
Yerbury, F. R.	1	1	0
Young and Brown	5	5	0
	£1,040	14	7

[For list of Competitions Open see last issue.—ED. A.J.]

THE ARCHITECTS' DIARY

WEDNESDAY, NOVEMBER 19

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of Members' Holiday Sketches. Until November 27.

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "Persian Painting." By Laurence Binyon, LL.D. Chairman: Sir Arnold Wilson, K.C.I.E., etc. **8 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Italian Mediæval Architecture: Venice, and the Doges Palace." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

ROYAL ACADEMY, Burlington House, W.1. "Early Methods of Oil Painting." By A. P. Laurie, D.SC. **4 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Students' Meeting. Address by Arthur T. Black, STUD.INST.C.E. Chairman: Sir George W. Humphreys, K.B.E. **6.30 p.m.**

PUBLIC HEALTH CONGRESS AND EXHIBITION. At the Royal Agricultural Hall, N. Until November 22. 10 a.m. to 7 p.m. **10 a.m.**

SOANE MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Art and House Collection. Open Thursdays and Fridays in November. 10.30 a.m. to 4 p.m. **10.30 a.m.**

EXHIBITION OF MODELS OF OLD LONDON. At the Golden Cross Hotel, Strand, W.C.2. The models are the work of John B. Thorpe. **2.30 p.m.**

THURSDAY, NOVEMBER 20

WEST YORKSHIRE SOCIETY OF ARCHITECTS. At the College of Art, Leeds. General Meeting. "Where Are We Going?" By H. S. Goodhart-Rendel, F.R.I.B.A. **7 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS, Savoy Place, Victoria Embankment, W.C.2. Ordinary Meeting. "Some Data Concerning Railway Electrification in Italy." By G. Bianchi. (Light Refreshments, 5.30 p.m.). **6 p.m.**

INSTITUTE OF METALS, 36 Victoria Street, S.W.1. "Some Non-Ferrous Metals in Chemical Engineering." By Richard Seligman.

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "The Progress of Furniture Craftsmanship from 1650 to 1700." By John C. Rogers, A.R.I.B.A. **7.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. At the Metropole Hotel, Leeds. "Concrete and Critics." By A. W. Legat, M.INST.C.E. **7 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Sixth of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Fourth of a series of five public lectures on "Re-plannings of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre: "English Alabaster Carvings." By W. L. Hildburgh, F.S.A. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 21

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Finance and House Committee. Intermediate Examination. Until November 27.

LONDON SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. "More Light on London." By Dr. C. W. Saleeby. (Illustrated by a film entitled "A School in the Sun.") Chairman: Sir Leonard Hill, F.R.S. **5 p.m.**

NATIONAL HOUSING AND TOWN PLANNING CONFERENCE. At the Imperial Hydro Hotel, Blackpool. "Future Town Planning Legislation." By Dr. Raymond Unwin, F.R.I.B.A. 5.30 to 7.15 p.m. "Machinery for the Building and Controlling of New Towns." By Sir Theodore Chambers, K.B.E., F.S.I. 8.30 to 10.15 p.m. **5.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Western Counties Branch. At the Merchant Venturers' Technical College, Unity Street, Bristol. "The Erection of Steelwork." By G. F. C. Caswell. **7.30 p.m.**

SATURDAY, NOVEMBER 22

Sunrise, 7.28 a.m. Sunset, 4.3 p.m.

NATIONAL HOUSING AND TOWN PLANNING CONFERENCE. At the Co-operative Congress Hall, Albert Road, Blackpool. Morning Session: 10 a.m. to 1 p.m. Afternoon Session: 2.30 to 5 p.m. Subject: "The Administration of the Housing Act, 1930." Papers will be submitted by Sir William E. Whyte, John G. Martin and E. D. Simon, M.P. Joint Meeting at the Imperial Hydro Hotel of the Executive and General Committees of the National Council. 5.45 p.m. **10 a.m.**

SUNDAY, NOVEMBER 23

NATIONAL HOUSING AND TOWN PLANNING CONFERENCE. At Blackpool. Circular coach tour, 2 to 4 p.m. At the Imperial Hydro Hotel. "The Preservation of Lakeland." By Kenneth Spence. 5 to 6.30 p.m. Concert, 8.15 p.m. **2 p.m.**

MONDAY, NOVEMBER 24

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "The A.A. Excursion to Sweden and Denmark, 1930." By H. Austen Hall, F.R.I.B.A. Exhibition of photographs of buildings visited on the A.A. Excursion to Sweden and Denmark. Until 1 December 20. **8 p.m.**

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Cantor Lecture I. "Modern Domestic Scientific Appliances: Lighting of Rooms." By Professor Charles R. Dowling, F.I.C., F.INST.P. **8 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. South Midland Centre. At the University, Edmund Street, Birmingham. "Some Data Concerning Railway Electrification in Italy." By G. Bianchi. **7 p.m.**

TUESDAY, NOVEMBER 25

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, W.1. "The Construction of a Great Exhibition." By W. T. Bowman, O.B.E., F.I.A.A., M.I.STRUCT.E. Chairman: Sir William Crawford, K.B.E. **7 p.m.**

LONDON SOCIETY. At the Gas Light and Coke Company's Offices, Church Street, Kensington, W.8. "Gas as a Public Servant." By Sir Francis Goodenough, C.B.E. **4 p.m.**

WEDNESDAY, NOVEMBER 26

ARCHITECTURE CLUB. Eighteenth Annual Dinner, to be held at the Savoy Hotel, Strand, W.C.2. Topic: "London of the Future." R. Holland-Martin will preside. 7.15 for 7.30 p.m. **7.15 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: The Romanesque Period." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. First of three public lectures on "Stockholm and Its Environs." By A. M. Wijk. (Lantern Illustrations.) **5.30 p.m.**

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 Conduit Street, W. "Conway Castle and Town: Its Creation, Early History and Present Condition." By Arthur E. Henderson, F.S.A., F.R.I.B.A. (Illustrated by slides and drawings). **8 p.m.**

THURSDAY, NOVEMBER 27

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Literature Standing Committee.

WEST YORKSHIRE SOCIETY OF ARCHITECTS, 62 Woodhouse Lane, Leeds. Students' Debate. "That 'Esquisse Design' in Schools of Architecture is not essential to the furtherance of good Architectural Design." Affirmative: P. J. N. Penlington. Negative: D. Steel. **7 p.m.**

INTERNATIONAL CONGRESS OF MODERN ARCHITECTURE. At Brussels. Until November 29. Subjects for discussion: "Rational Ground Layout for Minimum Size Dwellings" and "Horizontal Sliding Windows."

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "The Influence of the Architect on Modern Furnishing." By John Gloag. **7.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "The Structural Engineer's Relation to Building Construction and Transportation." By Alfred Bossom, F.R.I.B.A. **6.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Seventh of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Last of five public lectures on "Re-plannings of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. At the Showroom of W. T. Lamb and Sons, 43 Shoe Lane, E.C.4. "Bricks and Tiles." By E. Valser. **7 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Sculpture." By Arthur Gardner. (Lantern Illustrations.) **5.30 p.m.**

FRIDAY, NOVEMBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, W.1. Fifth Annual Banquet to be held at the Stationers' Hall, City, E.C.

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. Paper on "Steelwork in Cinema Construction." By S. Willis. With an Introduction by William T. Benslyn, F.R.I.B.A. **6.30 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. South Midland Centre. Annual Dinner, to be held at the Grand Hotel, Birmingham.

SATURDAY, NOVEMBER 29

Sunrise, 7.40 a.m. Sunset, 3.56 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the Works of Messrs. W. T. Lamb and Sons, Worcester Park. **2 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Students' Afternoon Visit to the reconstruction works in progress at the L.C.C. Kingsway Subway.

MONDAY, DECEMBER 1

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Cantor Lecture II. "Modern Domestic Scientific Appliances: Heating of Rooms." By Professor Charles R. Dowling, F.I.C., F.INST.P. **8 p.m.**

WEDNESDAY, DECEMBER 3

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Ordinary Meeting. "The Building of the Mansion House." By Sydney Perks, F.S.A., F.R.I.B.A., F.S.I. **8 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: The Gothic Period—The Cathedrals." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

TRADE NOTES

Messrs. J. W. Benson, Ltd., have just issued a booklet describing and illustrating their new turret clocks, bells and carillons, etc. A typical example of the firm's work is the clock installed on the sports pavilion at the Isle of Thorns Summer Camp for Boys, illustrated in the last issue of THE ARCHITECTS' JOURNAL. They were also responsible for the manufacture of the new clock on the Portsmouth Town Hall, which, it is claimed, is the largest and most powerful in the South of England. The latter shows the time on four illuminated dials of 11 ft. diameter; it strikes the hours on a bell of four tons and chimes the Cambridge quarters on four smaller bells of proportionate size, making a total weight of nearly seven tons. The firm's other work includes a large clock for the Post Office, Geelong, Australia (as a memorial to the late King Edward VII); the clock for the International Exhibition, 1862; the clock and carillon for St. Patrick's Cathedral, Dublin; the clocks at Welbeck (for the late Duke of Portland); St. James's Cathedral, Toronto; New College, Oxford, and the Hoseinabad Tower Lucknow. The large extent of the firm's premises, which are equipped with the latest labour-saving tools and machinery, gives immense facilities for the manufacture of work of this type. Messrs. Benson invite persons to visit their workshops, which are at the rear of their showrooms, 62–64 Ludgate Hill, E.C.4, and view the progress of orders during manufacture.

*

Much interesting information is given with regard to the manufacture of clay goods for building purposes in the new advertising literature, just published by Messrs. Wheatly & Co. In "Fireplaces in North Staffordshire Briquettes" the firm point out that when it is desired to construct or use an old-world fireplace without disturbing the mental tranquility of lovers or owners of modern furniture, the 6 in. by 2 in. by 1 in. Triton hand-made sand-faced briquettes are eminently suitable. These briquettes are purpose-made of North Staffordshire clays and stocked in this old size, giving 2 in. and 1 in. faces at will, in red, and in light, medium and dark brindled colours. All the colours are natural, and are obtained by a judicious mixing of the different seams of clay, coupled with special methods of firing. It is claimed that no fear of unsightly scumming need be entertained, provided Portland cement and sand are used for erection, as Triton briquettes are treated against soluble salts in the clays. Among "Eleven good reasons why architects specify the goods of Wheatly & Co.," another leaflet, the firm state that all goods are made by hand; tiles, ridges, roof fittings, flooring quarries and fittings, fireplace briquettes and all other goods are made from thoroughly weathered and tempered clay; the special process of double weathering in operation at the Springfield tileries being the architect's guarantee against lamination. In "Five tests of a good flooring quarry," the company give the results obtained with Triton flooring quarries by independent firms. "The good old way" is a little book about the Springfield Tileries, Newcastle-under-Lyme, showing that in tile-making the good old way is still the best. In it is reproduced a series of advertisements which have appeared in THE ARCHITECTS' JOURNAL. The advertisements deal briefly with the principal stages in the preparation and production of goods made from North Staffordshire clays, at the same time explaining how the finished article benefits by the particular method employed and the great care given to detail. The story is simply and interestingly told, but despite its brevity, it is impossible not to appreciate the value of the firm's experience, over sixty years, in the making of clay goods for building purposes.

*

The Ragusa Asphalte Paving Co., Ltd., of 25–27 Oxford Street, London, W.1, have opened another new branch, in Canterbury, in order to be in a position to cope with the increased business which has developed in Kent. The address is Sun Buildings, St. Georges Street, Canterbury. The resident manager, Mr. H. T. Skelcher, has a fully-equipped depot, and is in a position to give effect to customers' requirements at short notice.

*

The recent motor-cycle world's speed record of 150·75 miles an hour for a flying kilometre was set up on a stretch of concrete-surfaced road on the Cork City boundary. The road was laid in 1927 for the late County Surveyor of Cork, Mr. J. T. Murphey. The concrete section, two miles long, was the work of the South of Ireland Asphalt Co., Ferrocrete cement being used. The motor-cyclist was Mr. J. S. Wright; the designer of the engine, Mr. T. R. Temple.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, London, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

32268. Eddy, G. W., and Acton's Stoveware, Ltd. Manufacture of building-composition for flooring, etc. October 27.

32725. Aierey, Sir E. Concrete construction for floors. October 31.

SPECIFICATION PUBLISHED

337111. Roos, H. W. Apparatus for constructing concrete floors.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors, specialists, and some of the sub-contractors for the buildings illustrated in this issue:

Church at Barras Green, Coventry (pages 755–757). General contractors, H. Clarke and Sons. Reginald Hallward, stained glass east window; Alfred Miller, carving; Mr. Pyment, pulpit and prayer-desk; Ames and Finnis, facing bricks and tiling.

Moyses Stevens Flower Shop, Victoria Street, S.W. (pages 758–761). General contractors, Bovis (1928), Ltd. General foreman, F. Vosper. Sub-contractors: F. Lawford & Co., asphalt; London Brick Co. and Forders, Ltd., bricks; South-Western Stone Co., Ltd., stone; F. Bradford and Son, artificial stone, fireproof construction and stairtreads; Dorman Long & Co., Ltd., structural steel; Acme Flooring and Paving Co. (1904), Ltd., wood-block flooring; Art Pavements and Decorations, Ltd., patent flooring; G. N. Haden and Sons, Ltd., central heating, boilers, and ventilation; John Richards, Ltd., electric wiring and electric heating; Matthew Hall & Co., plumbing and sanitary fittings; Yannedis & Co., door furniture; Crittall Manufacturing Co., Ltd., casements and window furniture; A. L. Gibson & Co., Ltd., rolling shutters; Haywards, Ltd., iron staircases; E. Pollard & Co., Ltd., sunblinds and shop front; Arthur Searle & Co., decorative plaster; Birmingham Guild, Ltd., Starkie Gardner & Co., and Cashmore Art Workers, metalwork; A. Broadbent and Son, stone carving; J. Whitehead and Sons, Ltd., marble; Waygood-Otis, Ltd., lifts; Birmingham Guild, Ltd., signs.

House at Tarring (page 772). General contractors, Frank Sandell and Sons. C. Allaway, F.R.H.S., horticultural work. Sub-contractors: Durbin and Sons, drainage, plumbing, domestic and central heating; Jacob, White & Co., Ltd., electric light, power and bell installations; G. Matthews, Ltd., fireplaces; C. E. Welstead, Ltd., casements and lead lights; United Water Softeners, Ltd., Permutit water softeners; Martin van Straaten, floor and wall tiling; John Bolding & Sons, Ltd., sanitary fittings; J. W. Gray and Son, Ltd., lightning conductors; Daneshill Brick and Tile Co., facing bricks; Collier's, tiles.

ARCHITECTS' WILLS

Sir Aston Webb, P.P.R.I.B.A., of Hanover Terrace, Ladbroke Square, W., left £96,421 (net personalty £90,001). Among his bequests was £100 to the Architects' Benevolent Society. Sir Aston's share and interest in his business and business premises were bequeathed to his son Maurice, to whom, with his daughter, Dorothy Marion Webb, he left the ultimate residue of the property.

Mr. Albert Saville Buckley, of Chorley, Lancs., architect and surveyor, left £8,790 (net personalty, £7,486).

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

Plans passed by the CATERHAM and WALLINGHAM U.D.C. : Two houses, Essendene Estate, for Mr. P. Surridge; ten houses, Sunny Rise, for Mr. W. Butler; additions to lodge, Whyteleafe, for Mr. R. S. Bradshaw; house, Croydon Road, for Mr. C. Dean; sixteen houses, Godstone Road, for Mr. W. T. Stutchberry; bank premises, High Street, for Lloyds Bank, Ltd.; outbuildings, The Meadows, Warlingham, for Miss Case; garage, Gordon Road, for Mr. C. L. Davies; temporary Church Institute, Whyteleafe.

The CHESHUNT U.D.C. has made application to the Ministry of Health for sanction to borrow £21,200 for the erection of the first instalment of the Cromwell Avenue housing scheme, providing for sixty-six houses. The complete scheme will comprise 136 houses.

The L.C.C., in conjunction with the Lewisham B.C., propose to erect a building in Churchdown, DOWNHAM, for use as a school treatment centre and as a maternity and child welfare centre. The estimated cost is £8,135.

The Hendon Council has received sanction for a loan of £14,240 for the erection of forty cottages on the Berridge Estate, EDGWARE.

The Canadian Pacific Railway Co., Ltd., is to erect a large hotel on land in Berkeley Square and Bruton Street, PICCADILLY, W.1. The building will contain 700 bedrooms and a number of restaurants, and the ground-floor frontage will consist partly of showrooms. It has been announced that the preparation of plans is to begin at once. The negotiations which have resulted in the acquisition of the site involved a sum of over £1,000,000.

The SUNBURY U.D.C. has instructed the surveyor to prepare plans and estimates and submit an application to the Ministry of Health for sanction to borrow £15,000 for the erection of thirty houses at Shepperton Green.

Plans passed by the SUNBURY U.D.C. : Twenty-six houses, Green Lane, Sunbury, for Mr. A. E. Beckley; house, Charlton Road, Shepperton, for Mr. Oliver Love; house, The Avenue, Sunbury, for Mr. J. Farmer; three houses, Squires Road, Shepperton Green, for Mr. A. W. Shepherd; eight houses, Manor Lane, Sunbury, for Mr. W. Myring; two bungalows, Scott's Avenue, Ashford Common, for Mr. F. Edwards.

Plans passed by the TWICKENHAM T.C. : Two houses and one bungalow, Wellesley Crescent and Upper Grotto Road, for Mr. H. L. Moyle; house, Cross Deep, for Messrs. Partridge and Daniel; shop, with flats over, Percy Road and Bridge Way, for Messrs. H. M. Grellier and Son; house, Nelson Road, for Mr. H. B. Phillips; extensions of wards, St. John's Hospital, for Messrs. Brewer, Smith and Brewer.

In a report of the Town Hall Committee of the WEMBLEY Council, it is recommended that the Council shall appoint an architect, who shall prepare a scheme for (*a*) town hall for municipal business only, (*b*) town hall and library, and (*c*) town hall, library and public hall to seat 1,500. The County Council is to be asked to bear the cost of the erection of the library. The cost of the building is estimated at £75,000.

EASTERN COUNTIES

Provisional plans for the new cinema to be erected on the old Beccles College site in Ballyate, have been approved by the BECCLES T.C. Another cinema is contemplated on the site of the old Lecture Hall, Fair Close, Beccles.

SOUTHERN COUNTIES

Plans passed by the CHATHAM T.C. : Twelve bungalows, Beaconsfield Road, for Mr. C. J. Howard; six houses, Park Crescent, for Mr. H. P. Hughes; two houses, Palmerston Road, for Mr. L. Shave; twelve houses, Magpie Hall Road, for Messrs. W. T. Davis and Son.

Plans have been passed for a new cinema to be erected at CROWBOROUGH for Messrs. Shipman and King.

Mr. Walter R. Hamblyn, architect and surveyor, has prepared plans for the erection of private residences on a site in Northiam Road, EASTBOURNE.

New shop premises are to be erected at the junction of Church Lane and Church Street, EASTBOURNE, for Messrs. Alfred I. Fear. Plans have been prepared by Mr. John C. Bowley, architect.

Mr. W. J. King, architect and surveyor, has received instructions to design a new cinema to be erected at the top of Mount Pleasant, TUNBRIDGE WELLS.

SOUTH-WESTERN COUNTIES

The BASINGSTOKE Council has passed plans for the reconstruction of the Pavilion Theatre, for Mr. E. G. Casey.

An appeal has been launched by the BRISTOL Hospital Council for £250,000 for increasing the hospital accommodation, and installing up-to-date equipment.

The Ministry of Health has forwarded formal sanction to the GOSPORT U.D.C. for the borrowing of £37,872 for the erection of 100 houses on the Kenton Road site and £2,978 for the purchase of 8,508 acres of land at Kenton Road North.

The Board of Trade has authorized the Poole Harbour Commissioners to proceed with work in connection with the proposed extension and development of the HAMWORTHY quays.

A scheme is in preparation for the erection of a cinema at HANHAM, Bristol. The local council has intimated that provided suitable plans are placed before them they are prepared to give the scheme favourable consideration.

The TORQUAY Corporation has decided to erect 188 more houses at Barton.

MIDLAND COUNTIES

At a meeting to be held shortly the Blore Heath (Staffs.) R.D.C. is to consider the question of building houses at BLORE.

The KIDDERMINSTER T.C. has decided that the site for the proposed new baths should be adjoining Caldwall Hall.

At a meeting of the LONG EATON U.D.C. the council resolved to invite architects to submit designs for a scheme for converting the Palace Theatre into an arcade and providing a covered-in market on land at the rear.

Messrs. Albert E. King & Co., architects, are preparing plans for a new cinema on the site of the Premier Dance Hall, LOUGHBOROUGH, for the Universal Car Co., Ltd.

The Southwell Diocesan Conference has approved a proposal to erect a church house on the site of St. Thomas's Church, Park Row, NOTTINGHAM. The estimated cost of the new building is £10,000.

The Staffordshire C.C. has agreed to provide an isolation hospital for patients in SOUTH STAFFORDSHIRE, at an estimated cost of £129,777.

Plans for fifty houses in Willowbridge Lane, Sutton-in-Ashfield, were passed at a meeting of the SUTTON-IN-ASHFIELD U.D.C.

The Staffordshire Education Committee has approved sketch plans for a senior girls' and a junior school at TAMWORTH for the accommodation of 480 and 350 scholars respectively.

At a meeting of the WALSALL R.D.C. the town clerk reported that sanction had been obtained for the erection of thirty-two houses.

NORTHERN COUNTIES

Provision has been made for the erection of more than 100 houses in the Cowpen Quay area of BLYTH borough.

Plans passed by the BRIDLINGTON T.C. : House, St. Andrew's Road, for Mr. H. F. Wood; house, St. Andrew's Road, for Mr. E. Thorpe and Mrs. K. Sharpe; twelve houses, St. Andrew's Road, and two houses, East Road, for Mr. A. L. Bacon; two houses, Sixth Avenue, for Messrs. W. and R. Barron; four houses, Kingsgate, for Mr. E. Gray; four bungalows, St. Oswald Road, for Mr. C. L. Waite.

The CASTLE WARD R.D.C. has confirmed the Housing Committee's decision to proceed with the erection of forty-six houses under the Hazlerigg housing scheme.

Plans passed by the DEWSBURY T.C. : Alterations, "Perseverance" Inn, Thornhill, for Messrs. S. Webster and Sons; houses, Spen Valley, Ravensthorpe, for Mr. N. Rayner; houses, Ossett Lane, Chickenley, for Mr. T. E. Gill; three houses, Fall Lane, for Mr. Beaumont, Senior.

The DURHAM City Council has approved plans for the provision of new baths and washhouses, estimated to cost £25,000. Plans are also almost complete for the proposed construction of new bridges and a through road, estimated to cost £100,000.

Plans for a new super cinema, prepared by Mr. Frank Verity, F.R.I.B.A., to be erected in the Headrow and Briggate, LEEDS, have been passed by the local Watch Committee. The theatre will have a seating capacity of 2,500, and is expected to cost about £150,000 to build.

The Ministry of Health has given sanction to the borrowing of £50,743 for the acquisition of land and the erection of 120 houses at an estimated cost of £350 per house, by direct labour on the Wigan Road (No. 2) housing site at LEIGH.

The LUNESDALE (LANCS.) R.D.C. has approved the purchase of a housing site adjoining Copy Lane, Caton.

At a meeting of the MANCHESTER Corporation Baths and Washhouses Committee it was announced that the Ministry of Health had approved of five of the nine schemes contained in the committee's new programme of development, recently authorized by the City Council. The approved schemes comprise the erection of public washhouses at Longsight, Moss Side, Clayton, and Newton Heath, and swimming baths at New Moston. The total estimated cost is £74,000. The Government is not prepared to consider a grant towards the cost of the remaining four schemes in the programme, which were all washhouses, until the sites have been acquired.

Plans for the proposed extension of NEWCASTLE Corporation Quay have been approved by the Tyne Improvement Commissioners.

The NEWCASTLE-UNDER-LYME T.C. has approved a scheme for the erection of new municipal offices, estimated to cost £40,000.

The SHEFFIELD city architect has been authorized to proceed with the erection of fifty-four houses on the Greenhill estate, at an estimated cost of £20,790.

Work has begun on the demolition of the Kursaal at WHITLEY BAY, in preparation for the building of a new theatre.

SCOTLAND

Improvements and alterations are to be carried out to branch banking premises of the Bank of Scotland, Union Street, ABERDEEN. Plans have been prepared by Mr. George Watt, F.R.I.B.A.

The DUNDEE Town Council housing committee has decided to apply closing orders to seventeen houses, on the site of which the west wing of the new city square is to be built.

The FAULDHOUSE (West Lothian) County Council is to erect new baths.

The Public Health Committee of the Fife C.C. recommends the erection of fifty houses at ST. MONANCE.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury ..	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster ..	Yorkshire	1 7	1 2½
B_2	Dorchester ..	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich ..	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EAST-BOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_1	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_2	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle ..	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 5½	1 1
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_2	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_2	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* NAVVY, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:							
Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.
RETURN, fill, and ram, ordinary earth, per yd. £0 1 6
SPREAD and level, including wheeling, per yd. 0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6
TRIMMING earth to slopes, per yd. sup. 0 0 6
HACKING up old grano. or similar paving, per yd. sup. . . . 0 1 3
PLANKING to excavations, per ft. sup. 0 0 5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.
IF left in, add to above prices, per ft. cube 0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1
DO. 6 in. thick, per yd. sup. . . 0 2 10
PUDDLING, per yd. cube 1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6
DO. 6-2-1, per yd. cube 1 12 6
DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.
LIAS-LIME CONCRETE, per yd. cube . £1 14 0
BREEZE CONCRETE, per yd. cube . 1 7 0
DO. in lintels, etc., per ft. cube . 0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9
FINE concrete benching to bottom of manholes, per ft. cube . . . 0 3 0
FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1*s.* 3½*d. per hour;* TIMBERMAN, 1*s.* 5*d. per hour;* BRICKLAYER, 1*s.* 8½*d. per hour;* PLUMBER, 1*s.* 8½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9¼ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra . .	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup. . . .	0	6	0
DO. 2 in., per yd. sup. . . .	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup. . . .	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each . .	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup. . .	0	11	0
SLATE DAMP COURSE, per ft. sup. .	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. . .	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. . .	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each .	0	0	3

MASON

MASON, 1*s.* 8½*d. per hour;* DO. *fixer,* 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube	£0	2	2

DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup. . . .	0	4	0
SUNK FACE, per ft. sup. . . .	0	3	9
DO. circular, per ft. sup. . .	0	4	10
JOINTS, arch, per ft. sup. . . .	0	2	6
DO. sunk, per ft. sup. . . .	0	2	7
DO. DO. circular, per ft. sup. .	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run . . .	0	1	1
DO. circular, do., per ft. run .	0	1	4
HALF SAWING, per ft. sup. . .	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed .	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup. . .	0	1	6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour;* TILER, 1*s.* 8½*d. per hour;* SCAFFOLDER, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:

Portmadoc Ladies				£14	0	0
Countess				23	0	0
Duchess				32	10	0
Old Delabole	*Med. Grey*			*Med. Green*		
24 in. × 12 in.	£42	11	3	£45	1	0
20 in. × 10 in.	31	4	3	33	0	6
16 in. × 10 in.	20	18	0	22	4	9
14 in. × 8 in.	12	1	0	12	16	3
Green Randoms, per ton				8	3	9
Grey-green do., per ton				7	3	9
Green peggies, 12 in. to 8 in. long, per ton				5	13	9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2

Cement and sand, see "Excavator," etc., above.

Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey			Med. Green		
24 in. × 12 in.	£5	0	0	£5	2	0
20 in. × 10 in.	5	5	0	5	10	0
16 in. × 10 in.	4	15	0	5	1	0
14 in. × 8 in.	4	10	0	4	15	0
Green randoms				6	7	0
Grey-green do.				5	9	0
Green peggies, 12 in. to 8 in. long				4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.			
FIXING lead soakers, per dozen .	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square . .	0	10	0
LABOUR only in laying slates, but including nails, per square . .	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour;* JOINER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube . .	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube . .	0	8	6

PITCH PINE, add 33⅓ per cent.

FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[continued overleaf

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building-in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	1	8
DO. ¾ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1¼ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* „	0	2	3
DO. *6 ft. sup.* „	0	2	6
DO. *20 ft. sup.* „	0	3	1
DO. *45 ft. sup.* „	0	3	3
DO. *65 ft. sup.* „	0	3	5
DO. *100 ft. sup.* „	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *½ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

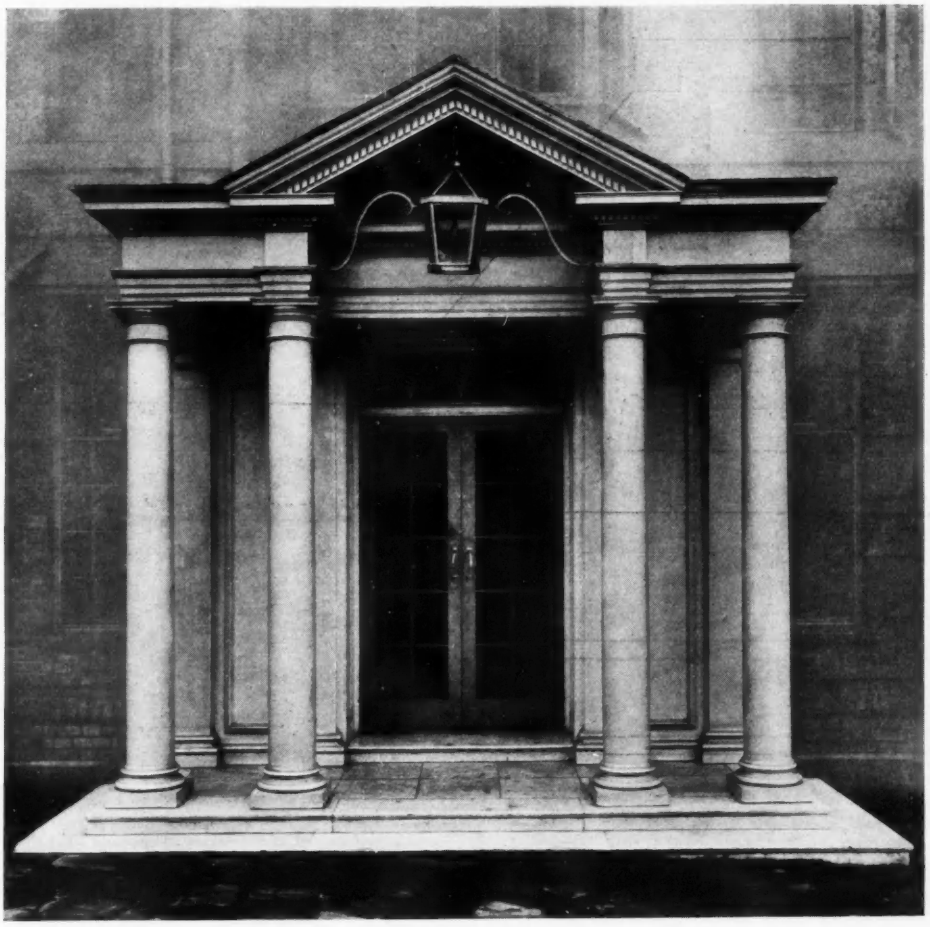
SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ½ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



ENTRANCE PORCH TO FLATS
ON THE GREYSTOKE ESTATE, EALING, W.5
Designed by T. P. BENNETT & SON

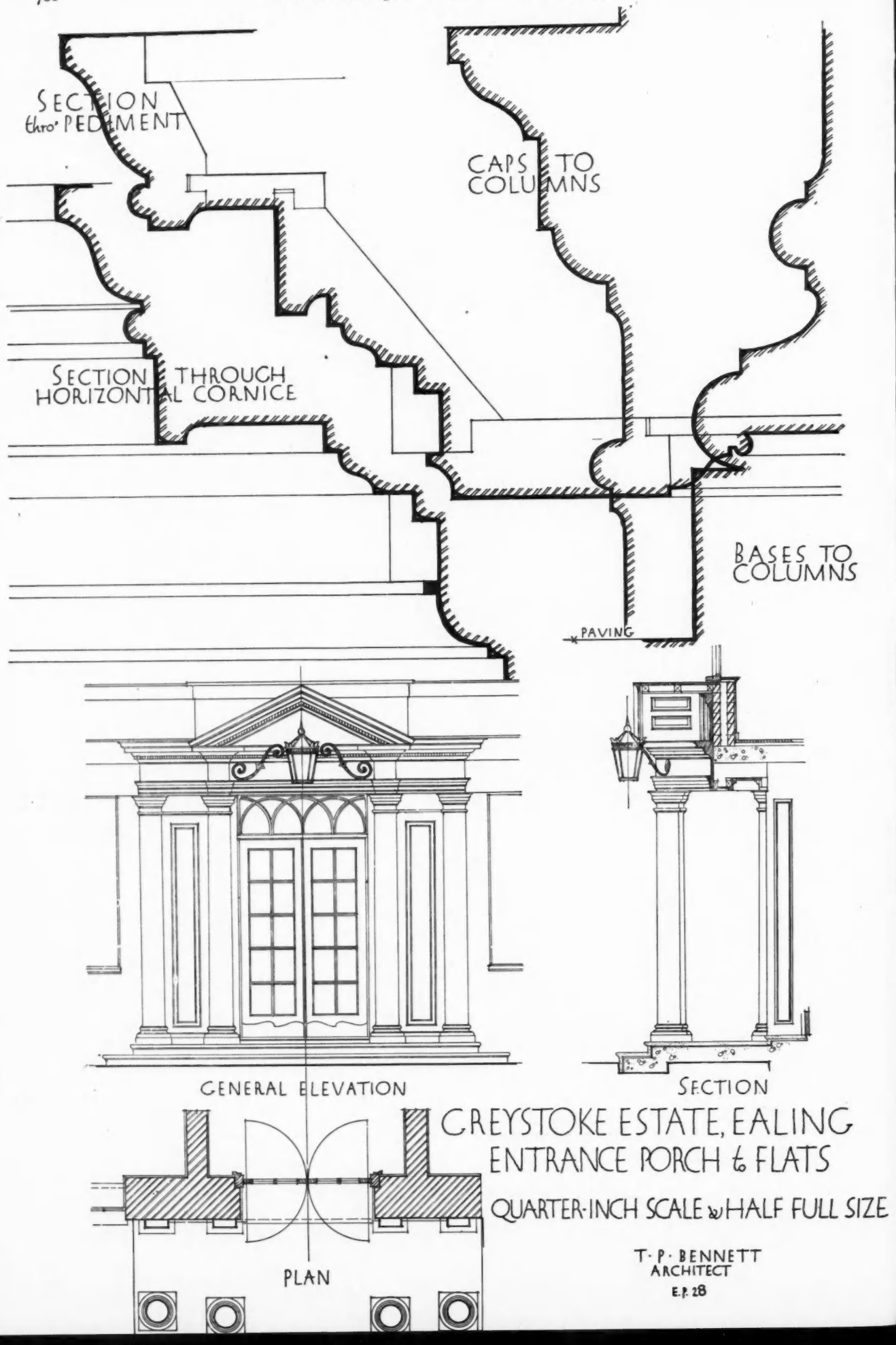
THE Porch shown in the above photograph and in the quarter-inch scale and half full-size detail drawings overleaf gives on to an entrance hall, serving a block of flats recently built on the Greystoke Estate at Hanger Hill, Ealing.

Comprising a screen of four columns and responding pilasters, and carrying a frieze, architrave, cornice and pediment, it is carried out in pine, painted a broken white, and is a good example of the use of the Roman Doric order.

The projection of the pair of columns which flank the glazed, double-hung entrance doors themselves should be noticed, as giving emphasis to the centre of the entablature from which, on wrought-iron brackets, is carried the lamp. The design of the fanlight is completely in harmony with the remainder of the composition.

The building as a whole was illustrated in THE ARCHITECTS' JOURNAL *for December 11, 1929.*

The drawings overleaf may be read with architects' ordinary scales (¼"; and 6" = 1 ft.)



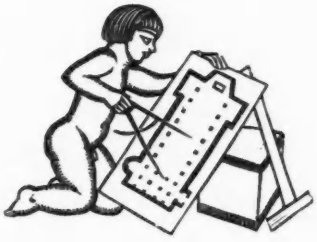
GREYSTOKE ESTATE, EALING
ENTRANCE PORCH & FLATS

QUARTER-INCH SCALE ½ HALF FULL SIZE

T. P. BENNETT
ARCHITECT

E.P. 28

THE ARCHITECTS' JOURNAL



WEDNESDAY, NOVEMBER 26, 1930

SOOT-BOUND

NOW abideth November, fog and smoke, and the greatest of these is smoke. For the Londoner or other town-dweller, such is the horrid triune burden of his thoughts.

For him, indeed, it is no delight on a foggy night at this season of the year to reflect that November is inevitable; nor that, in England, mere mist is by no means to be abolished lightly, as, for example, by Act of Parliament. But the greatest of these is smoke. And the rumination may well rankle within his fume-congested bosom that it is this very evil that demonstrably should lie within man's own power largely to alleviate if not definitely to cure. What, he may well ask, is being done about it ?

Little enough, in all conscience. Perhaps, of late years, the London fog has lost some of its particularity and become more general in character. But however it may be with this, in common with other enormous residential centres where the spread in use of central heating gas or electricity, for domestic purposes, has been slow but sure, it is well to remember that the visitation that mercifully afflicts them but occasionally is a permanent condition of existence in the industrial strongholds of the Midlands and the North. Let the town-dweller only make the voyage to Scotland, east about, and see the pall blowing miles out to sea from the plumed furnaces of the Yorkshire, Durham and Northumberland coast, or, adventuring by air to the Continent, mark how the London haze spreads far out over the Channel.

Such was the state of affairs admitted at the National Smoke Abatement Society's conference a few weeks ago. It was added that smoke was causing a wastage of £150 per minute in material values. There is not only the loss of some three million tons of potential fuel—say, £6,000,000—per annum to take into consideration, but the deterioration of the actual fabric of buildings, as well as of their decorations, fittings, and appointments, and of art treasures generally. Upon these there is no setting a price—much less upon the ruin to health.

The reader with a long memory will not need to be reminded how often we have returned to the charge. Figures have been quoted. History has been ransacked back to the time of Edward I, when coal first arrived upon the scene, and a proclamation was issued banning its use in London while Parliament was sitting. The damage to structures has been recounted in general and in detail. The bill prepared by Evelyn, the diarist, has been cited; the agitation of 1819, followed by a century or so of pleasant committee meeting and a desultory Act or so, nibbling at the problem; the Smoke Abatement Exhibition of 1909, an invitation to participate in which was declined by the Local Government Board; the private Bill of 1913, which never became law; the House of Lords Bill of the following year, withdrawn on the promise of an official committee, whose activities were suspended by the war. It is a sad tale.

What, then, is the position today ? Investigations are, we are told for the hundredth time, in progress " in connection with various classes of fuels, both for industrial and domestic purposes." Research, " the importance of which it is impossible to exaggerate, has shown that one way to economy and reform is the substitution of some form of solid smokeless fuel for raw coal," an opinion that we seem to have heard before. And, on top of that, the Smoke Abatement Society actually dares, in conference, to voice the pious hope of " an England with pure, clean air and a real warm sun."

And that will be about all, for the present. In other words, though, in theory, a revolution could be worked tomorrow, or at most within a year, no such consummation is even remotely within view. It would be too costly. In fact, the smoke problem would seem to fall in that class of issues susceptible of resolution rather by the slower processes of evolution. And in that economic field if the scientist, we may be sure, will have his moves to make, the architect has his. Let him design, as he has begun to do, gas-fire settings, radiator treatments, fitments for electric stoves (many more will be in demand when the Electric Grid is an accomplished fact), yea, the very anthracite stove itself.

But meanwhile let us—yes, do let's toast our toes at the open fire !



AN EIGHTY-YEAR-OLD CHALLENGE TO "THE NEW ARCHITECTURE": JOSEPH PAXTON'S CRYSTAL PALACE

> *"It was just about eighty years ago that Joseph Paxton designed the immense building of the Crystal Palace, all in glass and iron, and there were sanguine persons at the time who regarded it as a symbol of the peace that was to replace all wars, though within twenty years Germany was to defeat Austria and do her best to annihilate France.*
>
> *"If you compare that building with the steel and glass buildings erected in Germany in the last few years, you will find that the Crystal Palace, designed by a gardener and ridiculed for generations, holds its own with the work of the latest scientific German architects, and is very much better than the attempts at design in glass and steel by that enterprising person, M. le Corbusier, which you will find illustrated in the multitudinous publications of 'the new architecture.'"*

—SIR REGINALD BLOMFIELD, *addressing the Royal Academy on "The New Architecture."*

NEWS & TOPICS

STATION-ARY

LAST week's leading article on railway stations calls attention to Mr. Michael Sadleir's more thorough diagnosis of this " blind-spot in English civilization," which appeared in the November issue of *The Nineteenth Century*. Mr. Sadleir asks, as people are increasingly asking, why we should allow our railway companies to perform their public functions in surroundings of disorder, discomfort and unimaginative dirt.

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" Authority, apparently, has not troubled to realize that the visitor comes to see (say) Oxford or Cambridge; he is not primarily interested in the programme of the Theatre Royal or the latest cereal . . . or that the cheapest boots or raincoats are available at this shop or that. Not only is he uninterested : he definitely resents having this irrelevant information thrust on his helpless notice. And he goes away with a queer reservation in his enthusiasm for these beautiful and historic cities, asking himself how it may be that the English, with such a past, should be blandly capable of such a present. He may well ask; no Englishman can give him a convincing answer."

MR. HICKS AND HOUSES

Mr. George Hicks, the Secretary of the Amalgamated Union of Building Trades Workers, recently described the type of house that is sold by easy instalments as one of the worst swindles of our time. He is right. Anyone can see, if he will examine the facts, that these houses are speculations. They are built to sell, quickly. Their design is based upon a supposed idea of what the public wants. They have large halls and small rooms. Their construction is a sham, obvious to the experienced eye, but sufficiently covered with paint and plaster to deceive the unwary.

★

And the pity of it is that we have heard a great deal about the deficiencies of Council houses, because presumably Councils, being public bodies, are there to be grumbled at. On the other hand, the occupants of the bad instalment house, having brought their troubles on themselves, being in process of paying for them, and indisposed to call themselves fools, keep silent.

SIR REGINALD BLOMFIELD AT THE R.A.

Sir Reginald Blomfield's address to the Royal Academy, last week, was, in effect, a plea for sanity in architecture. He was careful to say that by " The New Architecture " of his title he intended to define the movement now widely recognized on the Continent as such, that movement in which fulfilment of purpose was held to be a cardinal point. And though he had some caustic comments to pass upon it—" crude and unabashed brutality " ; " pyramids and parallelopipeds " ; and so forth—he emphasized the wisdom of watching all tendencies in modern architecture, and endeavouring to disentangle what was good in any of them. That architecture is a serious art, and not merely the plaything of the amateur is a maxim that cannot be too often repeated. " The New Architecture," he considered, was based on a confusion of the functions of the architect and engineer. " For myself," ran his peroration, " I cannot conceive of anything more dull and uninteresting than a dead level of standardized architecture, and a culture organized on strictly scientific lines. I prefer the hill on which I was born ; England for the English, France for the French, Germany for the Germans. This does not mean international hostility ; on the contrary, it means that regard and admiration which we feel for those who preserve their individual self-respect."

THE A.A. SCANDINAVIAN TOUR

Mr. Austen Hall, in the course of his paper on the A.A. Excursion to Sweden and Denmark, told of the surprise it was to " our functional faculties " to explore a building—the Art Gallery at Gothenburg, a portion of the 1923 Exhibition—of which the section bears no relation to the elevation; and to see the upper part of the interior walling of Ericson's church in the same town, finished in logs—" you might say whole timbers "—to correspond with the roof. Actually the walls are of brick and the roof is of concrete. He also remarked that the interiors of a good many of the new buildings in Sweden were inclined to be dark, a great deal being sacrificed to the elevations.

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Of Carl Milles, Mr. Austen Hall gave the following pen-portrait : " He received us in his lovely garden on a cliff overlooking the waters around Stockholm—a man with quiet grey eyes, very refined features, a large head, wonderful hands, very slow speech, the embodiment of serenity. A man, I think, who builds around himself a defence against the disturbances and worries of life so that nothing shall interfere with the dreams of divinely beautiful things which he is able to express in material forms. The power of Milles's work is that he sees in nature a subtlety and humour that need no added artistic conventions to explain them or embellish them. He puts into the work something that he sees, something that is life, inapprehensible to most of us until the genius of a Milles makes it plain."

AN ATELIER OF ARCHITECTURE

It has been suggested by a few enthusiasts that an atelier on the lines of the old first atelier of architecture, so successfully run under the patronage of Mr. Arthur Davis, should be started. Mr. Davis himself has been approached and is perfectly willing once more to act as patron and critic. It is, however, necessary to be assured in advance of adequate support.

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For the benefit of those readers who do not remember the old atelier, it may be helpful to outline the working of such an institution. Subjects are set by the month, and each member is expected to come in on the Saturday allotted for the sketch design and make his study of the problem. Copies of these are given in to the committee, and for the rest of the month when the member feels inclined he can work up his sketch to any degree of elaboration. A day is appointed for the criticism, and the schemes are hung and judged by a jury, and publicly criticized by the patron. Short subjects are also set during the month and criticized at the same time.

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The system is of great benefit to men of some experience, who are keen to improve their powers of design and draughtsmanship, and is in no way intended to compete

with the existing excellent schools. Any of my readers who are interested may have full particulars from Mr. G. G. Clark, c/o Mewès and Davis, 22 Conduit Street, W. Until the necessary support is forthcoming nothing can be done.

HITCH YOUR WAGON TO A—BALLOON

I should have loved to see the balloon go up at Southampton last week. What balloon, you ask; anything special about it? Well, there was, rather. You see, hitched to it was a framework 15 ft. across, from the perimeter of which ropes hung down to the ground. It is this you are to visualize, rather than the gas bag. For to the councillors of Southampton in solemn conclave assembled near by (all save one, and he an alderman), they said, after the manner of the Pyramus and Thisbe play: "Let this present tower." Now, this was done on the site of the proposed civic centre, and the arrangement of spars and rigging, though swaying gently to the breeze, did, I make no doubt, give a very good idea of the shape and effect of Mr. Berry Webber's design. And the alderman? Oh, he drove to a point of vantage well removed from the scene of action, to judge of the effect from the outskirts of the town. Where are your mere scale models, now? A merry conceit, truly.

CATHEDRAL RESTORATION

The Bishops who were gathered together in London last week for the autumn session of the Church Assembly discussed in several cases the difficulties which they are now experiencing in maintaining the structure of their cathedrals. The actual responsibility falls upon the Dean and Chapter, but at Salisbury, Durham and elsewhere, the need of raising funds for preservation purposes is giving a good deal of anxiety to the Bishops as well. In Queen Victoria's day much was spent upon ill-advised restoration. Among the cathedrals supposedly restored at a cost of over a million pounds between 1837 and 1887 were Hereford, Chichester, St. Davids, Ripon, Chester, Lichfield, Manchester, Peterborough, York, Rochester, Southwell, Gloucester, Carlisle and Wells. Some of the horrors perpetrated may be seen at Salisbury, where in 1856 damaged portions of sculptures were "restored" in Caen stone and gilding and colours applied. Even roof paintings were "effectively reproduced." Fortunately the ecclesiastics of 1930 have more appreciation of the need to carry out any preservation work with the greatest care for treasures inherited from the past.



Old London Bridge, 1630, showing the Traitor's Gate at the Southwark end, with their heads impaled on spikes above it. One of a series of models, by John B. Thorp, now on exhibition at the Golden Cross Hotel, Charing Cross, S.W.

PAINTING IN THE WINTER

Not enough people realize the advantages of having painting and interior decoration work done during winter months. That there is a surprising difference between estimates in winter and in summer I can testify from personal experience. Under normal conditions this is true, but the present acute unemployment among painters adds further point. One of the advantages, of course, is the better choice of good workmen and the closer supervision possible when work is scarce: the reason why so many people leave it to the spring is because they leave everything to do with the house until spring stirs them to action, and the strengthening light shows up the bad bits in their true light.

AN HISTORIC MANSION

What and where is Earnscliffe? I take leave to doubt whether many readers could say, off-hand. Nor could I, were it not for the arrival of dispatches from Canada describing the renovation of the interior of this mansion in Ottawa, for many years the residence of Sir John Macdonald, first Prime Minister of Canada, and henceforth to be the permanent home of the High Commissioner for His Majesty's Government of Great Britain and Northern Ireland. In preparation for occupation by Sir William Clark, appointed first holder of that office two years ago, extensive remodelling and redecoration have been carried out to the designs of Mr. J. Albert Ewart, an architect well known in Ottawa.

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On the main floor no structural changes have been made, so my information runs, but the rather dark, heavily oak-panelled dining-room has been greatly brightened through the employment of light-green colouring on the walls. And the worn-out tapestries have gone. What was Sir John's workroom has become a boudoir for Lady Clark, and the famed ante-room, served by a convenient door by which Sir John had been known to escape from unwelcome visitors, has been made into a small private sitting-room. The large reception room and the library remain much as they were. Above, the bedroom accommodation has been nearly doubled by partitioning, while new heating and electric systems, including two refrigerators, all of Canadian manufacture, have brought the house into conformity with modern standards. The Right Hon. R. B. Bennett is to write an inscription for the bronze tablet already designed to be placed on a corner stone to mark the historic site. ASTRAGAL

NEW CINEMA AT SMETHWICK, STAFFS.

DESIGNED BY W. T. BENSLYN



THE Rink Cinema, Windmill Lane, Smethwick, Staffs., is built on the site of the old Rink, and its completion under seven months is believed to be a record for a building of its size in the Midlands. Demolition began in November, 1929; possession of the site was obtained by the general contractor on December 15; six weeks later the 200 tons of steelwork involved had been erected in position, having been made and fabricated at West Bromwich beforehand.

As far as possible local materials and workmanship were utilized, and the building is cited as proof of the unsurpassed skill in craftsmanship of the British workman under adequate direction. The full effect of the main frontage, for example, could not have been realized had the brickwork been less perfect than it can be seen to be in the photographs reproduced herewith.

Some statistics may be of interest. Two-and-a-half tons of red oxide paint were required to protect the steel framework; 360,000 local sand-faced bricks, 1,300 tons of sand, 400 of cement and 900 of aggregate were used, while over 1,200 ft. of sound-deadening material were incorporated in the interior; and the average number of men employed, mainly

The front, apart from its segmental outline, on plan, relies mainly for impression in mass and in detail upon design and craftsmanship in brickwork, e.g. the diaper pattern in the architrave to the name panel is repeated above the exit doors on the right in compensation for the slight fall in the site.



A near view of the entrance front to show the design of the Portland stone window-surrounds, with crown and peacock.

drawn from the locality, was eighty, in addition to sub-contractors' staffs.

The site in Windmill Lane is one of the most important in Smethwick, and in order to obtain adequate means of access to all parts of the house, two 10-ft. open-air passages have been left running the full depth of the building on either side. Externally, the front elevation is a frank expression of the houses, or, perhaps more accurately, of harbour lights. A bold canopy over 40 ft. long shields the main entrance from the weather, and exit passages from each part of the house discharge directly on the front elevation.

Full advantage has been taken of the frontage of 120 ft., the central portion being occupied by three large openings, forming an outer vestibule, from which with the architect. The vaulting of the staircases and the foyer is reminiscent of Italian Renaissance architecture.

From the entrance hall four pairs of doors lead into a large crush hall, from which access to all parts of the auditorium is obtained. This crush hall will, it is hoped, avoid the necessity of patrons waiting in queues outside the building until such time as they



The Rink Cinema, Smethwick.] [*By W. T. Benslyn.*

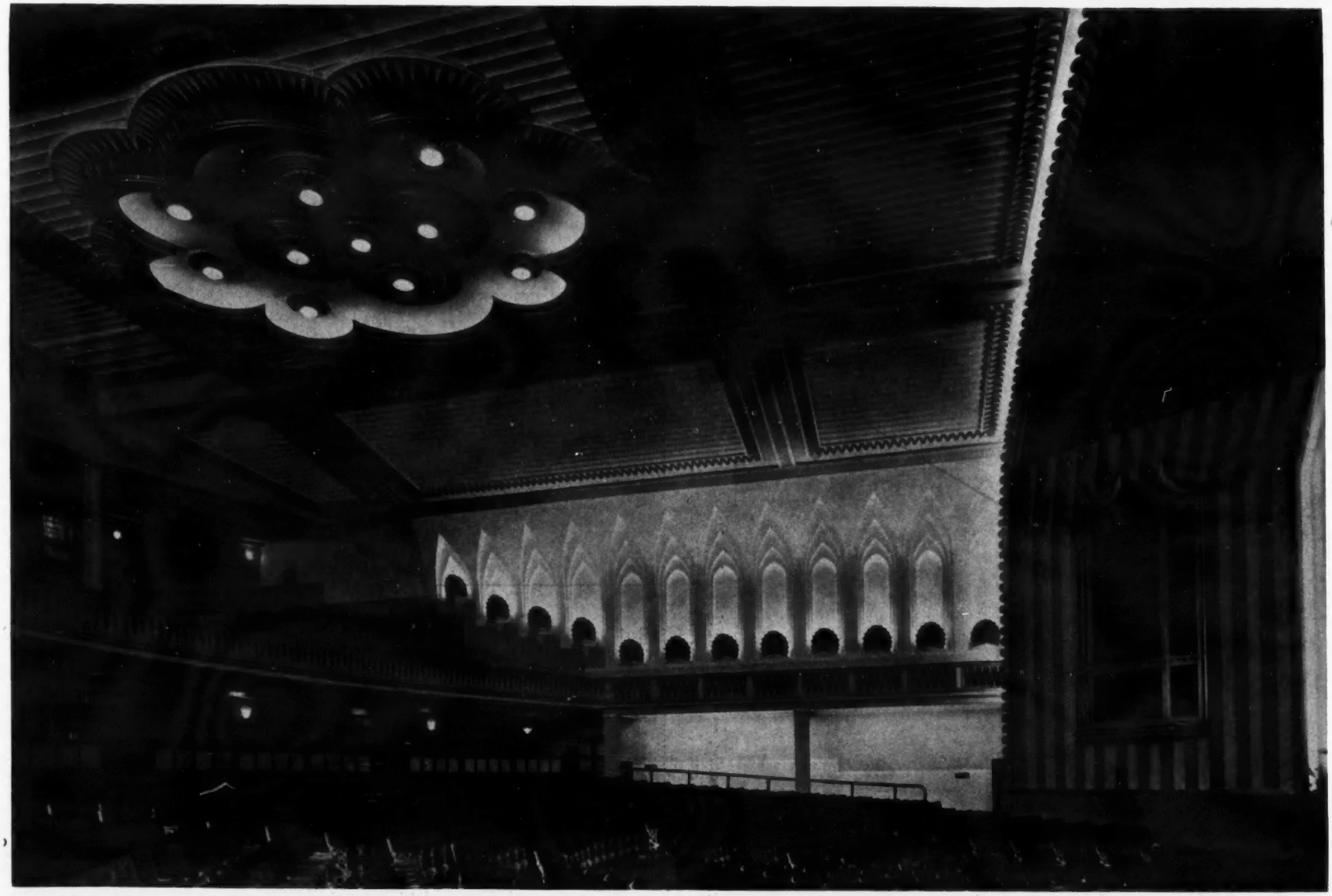
The proscenium, viewed from the balcony; the screen will show pictures up to 40 ft. by 28 ft. The central group of lights is expressly designed for a lighting colour scheme ranging through rainbow hues from orange to blue.

nature of the building, carried out in special sand-faced bricks. Emphasis has been given to the windows of the foyer and staircases by carved decoration in Portland stone. Two towers run from top to bottom of the building for means of access to the operating box; the tops are crowned with glazed cupolas, reminiscent of light-

six pairs of double doors give access to the main entrance hall. At either end of this hall is an ample staircase leading to the balcony foyer, from which the balcony is reached by a broad staircase. Here a striking scheme of colour decoration has been painted *in situ* by Mr. Frank Barnes, the clients' scenic artist, working in close co-operation

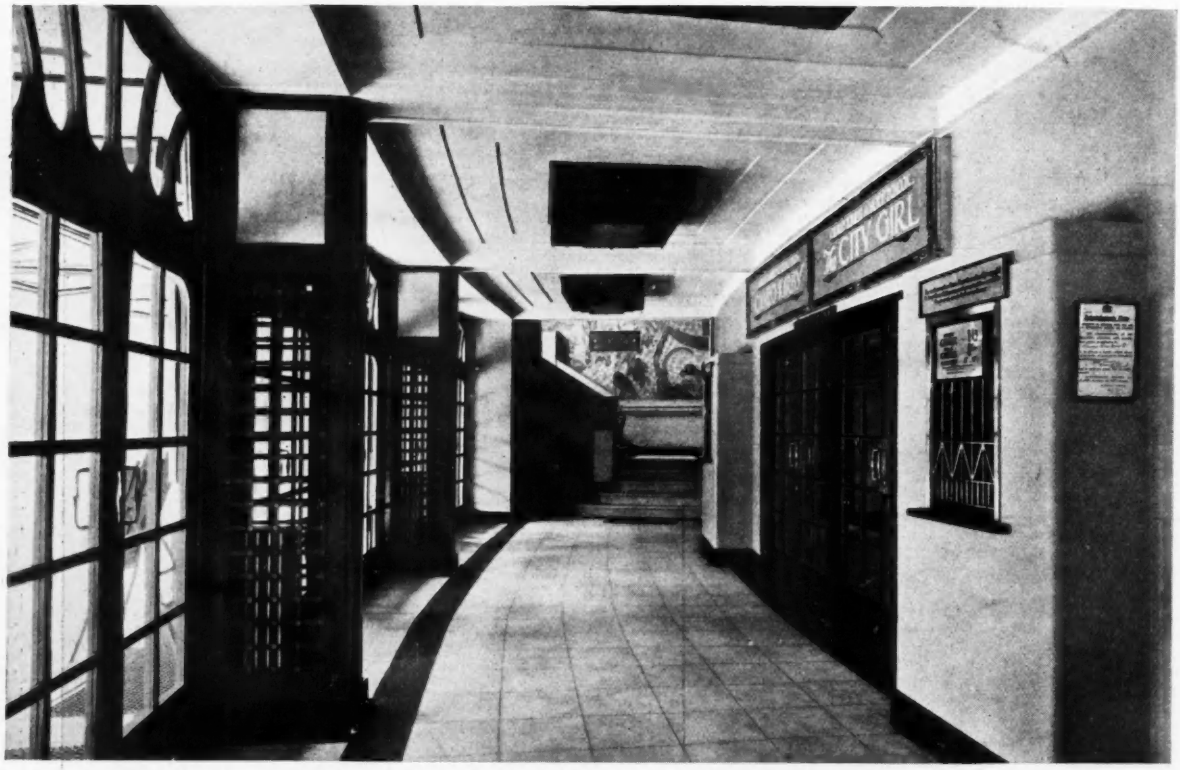
can be seated. In addition to this means of entering the auditorium, there is a special side entrance, with a canopy over, for queueing in one of the side passages. In fact, it has been the aim of the clients and their architect to provide the public with every comfort possible at a minimum price.

The accommodation of the building



The Rink Cinema, Smethwick.] [*By W. T. Benslyn.*

A side view of the house, showing the concealed lighting of the walls, the recess of the proscenium, ribbed like the ceiling, and the organ grille, of conventionalized sunflower design.

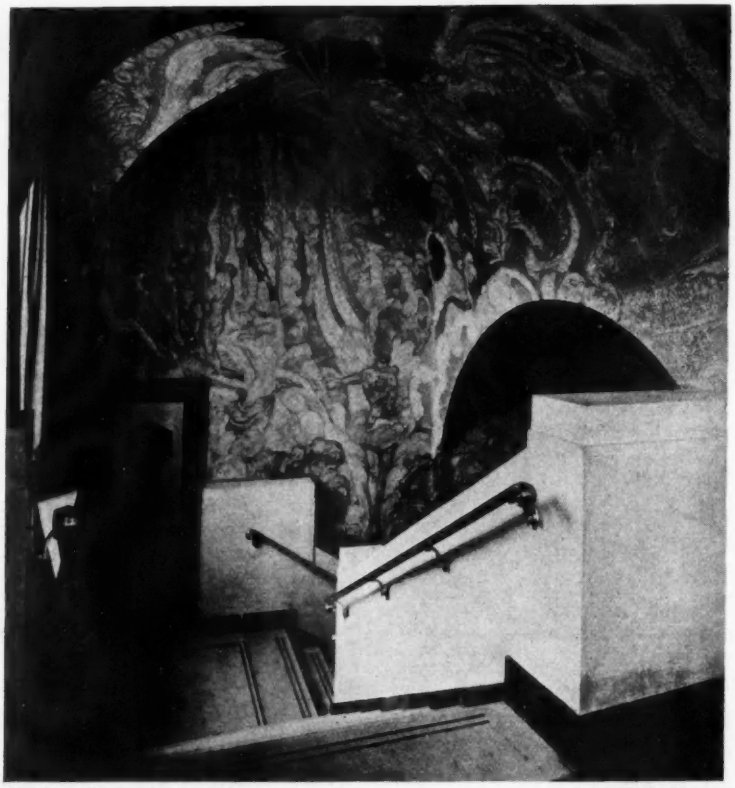


The entrance hall, showing, on the left, the three pairs of street doors, and, on the right, flanked by pay-boxes, doors leading to the crush hall ; at either end there are balcony stairs, a detail of one of which appears below.

is designed for slightly over 2,000, there being approximately 650 seats in the balcony and 1,300 on the ground floor, in addition to a limited amount of standing room.

Internally, the proscenium opening is more than 45 ft. wide and 30 ft. high, making it possible to show pictures up to a size of 40 ft. by 28 ft. The organ grille design is based on conventionalized plant-like forms, reaching their expression at the top in bold sunflower rosettes. The scheme of internal decoration has been carefully studied in relation to the lighting effects. The main feature of the ceiling is capable of being lighted in colours ranging through a scheme of orange, yellow, green, red and blue, according to the lighting treatment. Heating and ventilation are on the semi-plenum system, by which it is possible to introduce air at exactly the right temperature, whatever the weather may be outside.

All in all, the building is a testimony to the virtues of co-operation. It has been erected at high speed; the design has arisen directly out of an attempt to provide for all practical needs in the most simple and direct manner possible; and in the interior the artistic craftsmanship of the plasterwork and the effective colour decoration show the advantages to be derived from the architect designing these things, and choosing, in relation thereto, the curtains and fittings. Unity is thus secured.



The Rink Cinema, Smethwick.] [*By W. T. Benslyn.*

One of the staircases, showing the scenic decorations carried out by Mr. Frank Barnes in collaboration with the architect.

A MODERN LONDON HAIRDRESSING SALOON

DESIGNED BY P. J. WESTWOOD

THIS new hairdressing saloon is situated in the basement of Austin Reed's premises in Regent Street, W. It is reached through a spacious waiting lobby, containing a cloakroom, where the patron may leave his coat and hat before entering the saloon, various kiosks for the sale of tobacco, toilet requisites and theatre tickets, also a telephone booth. Here in the lobby, during the rush hours, a person may sit in comfort and await his turn for the barber's chair.

On entering the saloon one is immediately arrested by the unusual decorative treatment, its enamelled walls and its cream-coloured ceiling. The impression given is that the work in the saloon is carried on with the clean severity of an operating theatre.

Every part of the room receives the maximum amount of light by means of a large circular electrical fitment of stainless steel framework and frosted glass, projecting from the ceiling and closely resembling a huge caterpillar. This has been devised to give what is said to be the perfect light for barbers, and at the same time a decorative effect.

The unusual plan, which is similar in outline to the sole and heel of a boot, is partly the result of the shape of the site and the necessity of obtaining access to the plumbing throughout. The wall surface is broken up into a series of nine alcoves, each containing two chairs, with complete services to each bay, which contrast vividly with the usual barber's shop. In the centre of the saloon is a table, around which are placed six chairs. Thus, twenty-four persons can receive attention at the same time.

The surrounds to the entrance doors have been carried out in picked green Cippolino marble, and the floor is of Travertine marble, made to a special design. The double roller shutters, like a fire curtain at a theatre, are worked by means of a wheel on the marble surround, and are lowered and raised by a turn of the wheel. All doors, grilles, towel steamers, sterilizing cabinets, etc., are of stainless steel.

Giving off from the saloon are mixing and sterilizing rooms, and a series of changing-rooms, panelled in walnut with cork floors, with ordinary spray baths, batman's room and lavatory accommodation.

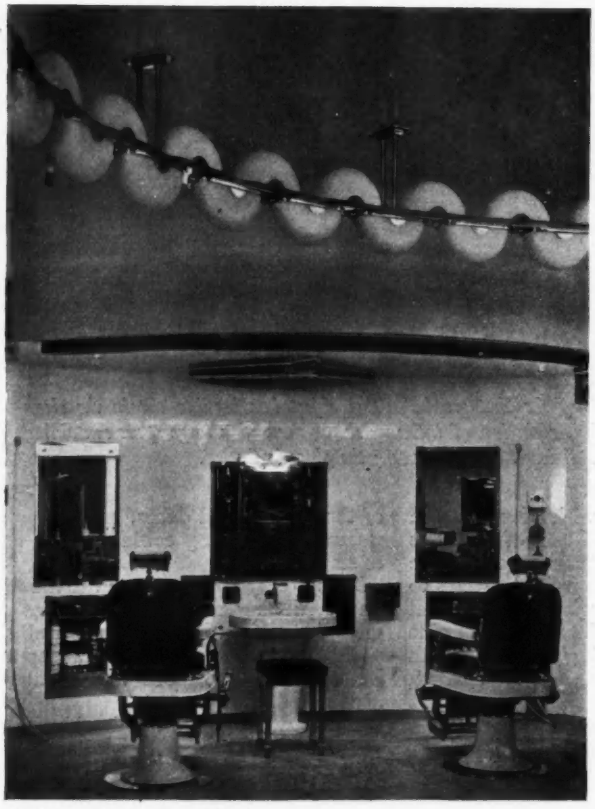
The plant for the hot and cold water, ventilation vacuum, steam and air compressors, etc., is situated in the sub-basement.



A general view of the saloon, showing the main entrance on the left of the photograph. The object has been to obtain the clean severity of an operating theatre, rather than a coloured decorative effect, a feeling of intimacy rather than of a large space containing barbers' chairs. The circular lighting fitment has a stainless steel framework; the glass is frosted.

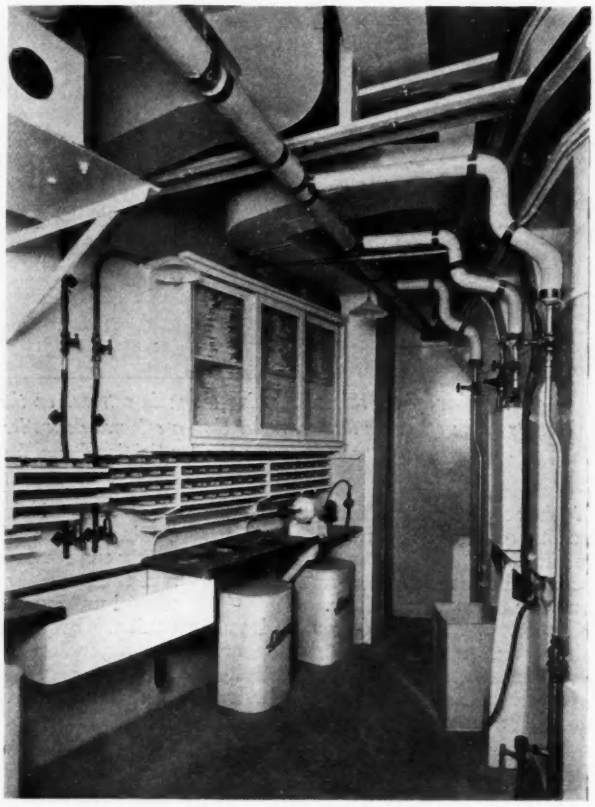


A side view of the smaller segment of the saloon. The walls are of white ceramic, the floor is of Travertine marble, and the ceiling is covered with a glossy paint. The door shown, of stainless steel, gives on to the sterilizing room, illustrated below.

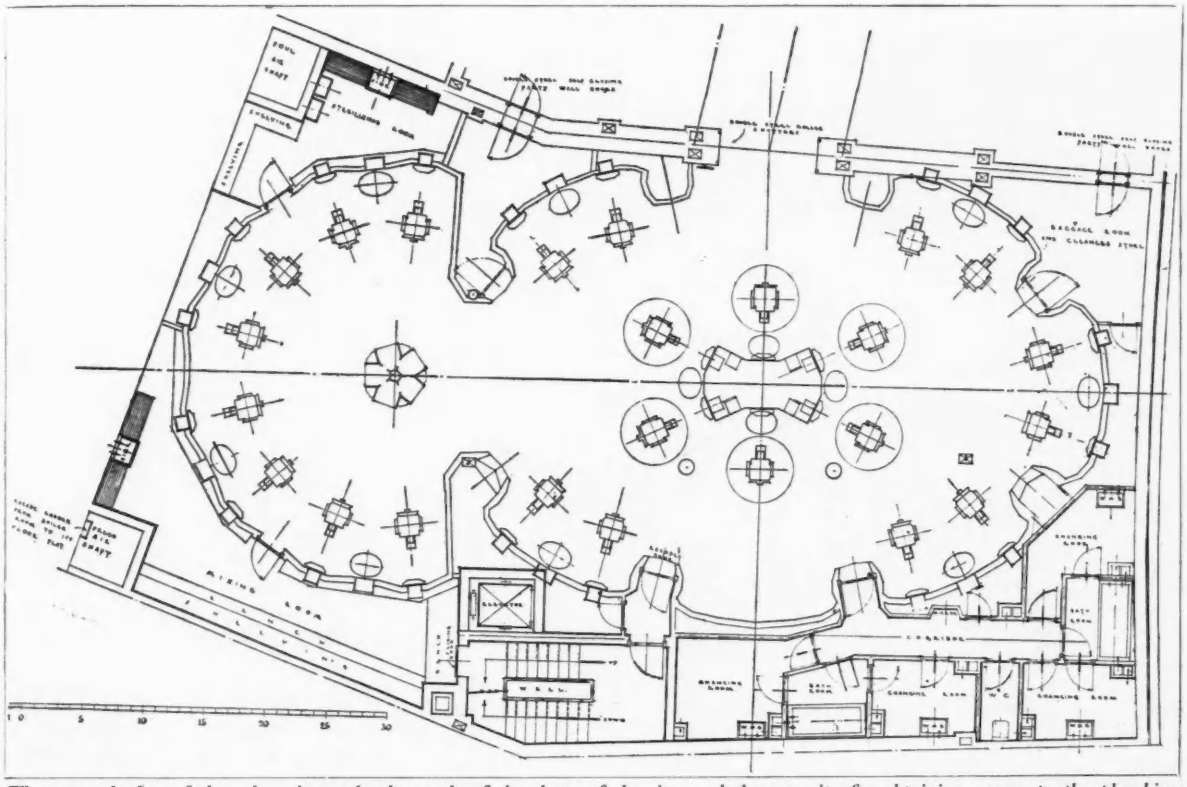


A Modern Hairdressing Saloon.]

A near view of one of the alcoves; each contains two chairs, with complete services to each bay. The sterilizing cabinets, towel steamers, etc., are of white ceramic.



In the sterilizing room: the walls and ceiling are cream coloured. Here the utensils and even the brushes in current use are sterilized, on the average, once a day.



The unusual plan of the saloon is partly the result of the shape of the site, and the necessity for obtaining access to the plumbing throughout. Outside the saloon is an ample waiting lobby (not shown on plan) containing a cloakroom, telephone booth, and kiosks.



[*By P. J. Westwood.*

The cloakroom, reception desk and telephone booth are situated on the right-hand side of the waiting lobby. On the left of the illustration is seen a part of the surround to the saloon entrance, on which is mounted the wheel operating the raising and lowering mechanism of the double steel roller shutters.





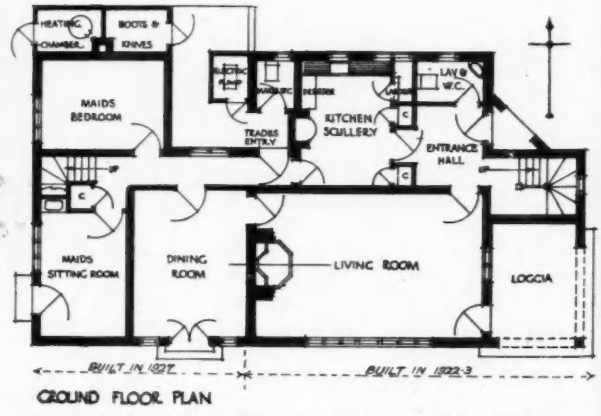
This view of the S.W. corner of the house as it was built in 1922-3 should be compared with the similar photograph of original and 1927 extension at the top of the facing page. The layout was expressly planned for building in two halves : for example, the archway here seen on the extreme left marks the termination of a corridor now prolonged into the new part.

A HOUSE DESIGNED

DEVISED BY

The views above give prominence to the second, westerly instalment, being taken from the N.W. and S.W. respectively. In the

PRENTICE WOOD, Farnham Common, Buckinghamshire, solves very prettily a problem with which most architects of public buildings are familiar enough, and even those engaged in the design of private houses may be occasionally confronted by their clients : building in instalments. The first idea was a modest week-end and summer cottage in the beechwood country. It was stipulated that this was to be complete and seemly in itself, but at the same time readily susceptible of expansion, if and when



GROUND FLOOR PLAN

The ground-floor plan. The newer portion provides a dining-room, maids' sitting- and bedrooms, heating chamber, etc.



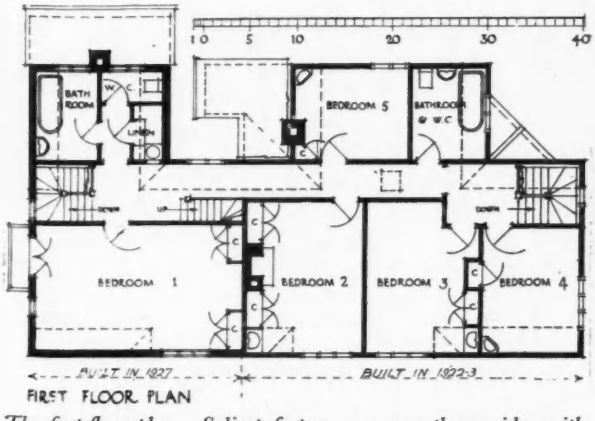
IN TWO INSTALMENTS

BASIL OLIVER

expediency permitted, to proportions suitable for permanent residence.

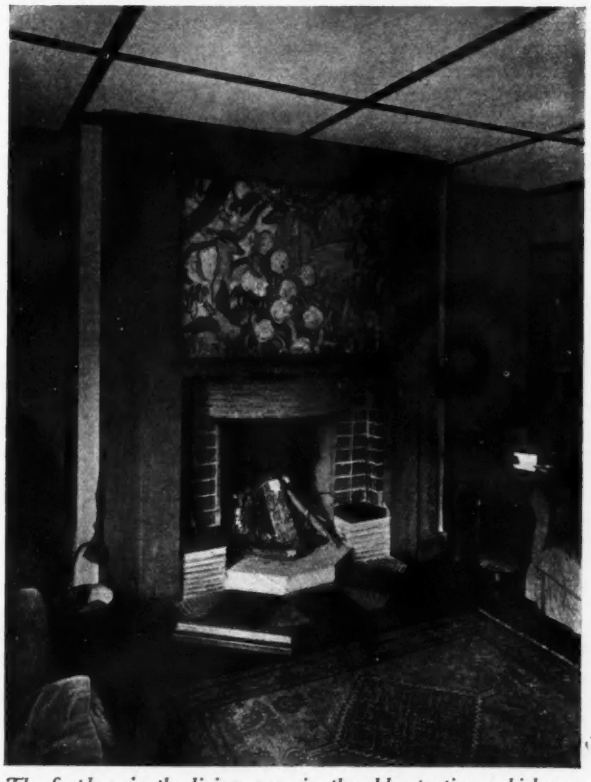
Forewarned is forearmed is never more aptly applicable than to a building adventure of this kind: fortunately the ultimate requirements were in view from the outset, and it is easy to see that Mr. Basil Oliver entered upon it with the greater relish for its inherent difficulties.

Almost invariably where unforeseen extensions are concerned it is the provision of access to the added rooms that is the stumbling-block. Hence a



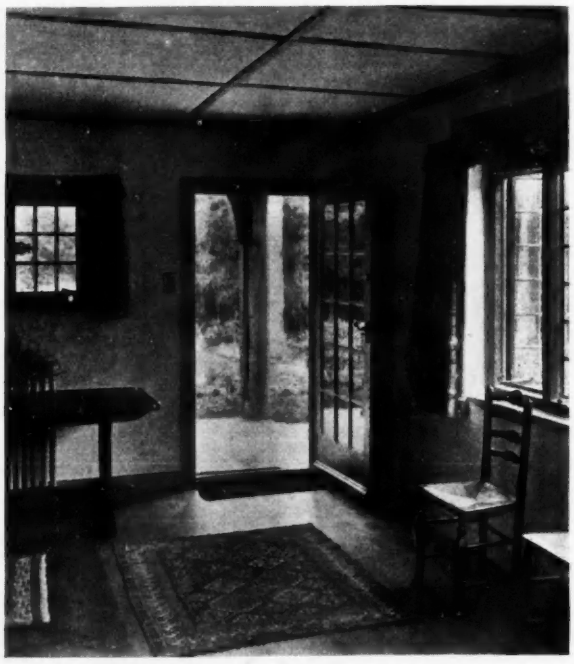
The first-floor plan. Salient features now are the corridor with stairs at either end, and the extra (principal) bedroom.

former may be seen the balcony to the principal bedroom. Most of the external woodwork is oak untouched; upper walls are tile-hung.



The fireplace in the living-room in the older portion, which now assumes the uses of a drawing-room. The woodwork is in oak, like the floor; roofing tiles and dull purple bricks are used for the fireplace; the walls are beeswaxed plaster, parchment-colour. The decorative panel was painted, in tones intentionally rather low, for the sake of harmony, by Hugh de Poix.





The loggia from without and within. This feature, being at the south-east corner of the original plan, remains unaffected by the extension. The room with which it is in communication is the original single living-room.

central corridor, both upstairs and down, was a key to the present situation. Moreover, the ground-floor corridor was made to terminate in an archway that gave definition to the earlier end elevation concerned. Hence, too, the placing of the main chimney-stack at this end, where the extension was designed to come. Externally this expedient worked very well: what was the dominant feature in the first edition takes its place very happily as a point of punctuation in the whole. The full stop becomes a colon.

The house, which is built of bricks and tiles, the upper part of the walls being also tile-hung, has woodwork mainly of oak, left untouched. Steel casement windows are fitted into the oak frames. One or two deal doors in the newer part that are exceptions to the general rule of oak have been painted a very bright green, contrasting very effectively with the oak lintels, etc. The balcony provided to the new principal bedroom, which takes up much of the space added on the first floor, is an attractive feature. A loggia was already built at the south-easterly corner of the house that remains untouched.

Within, besides the bedroom already mentioned, the extensions have given, upstairs, an additional bath, w.c., and linen cupboard, and, last but not least, for it adds materially both to the symmetry and convenience of the plan, another staircase. Below there are provided a dining-room, to take over part of the uses of the former single living-room, and a sitting-room and bedroom for maids.

Prentice Wood, Farnham Common, Bucks.

By Basil Oliver.



A corner of the new principal bedroom, looking towards the balcony with iron railings that is the focus of interest in the new west end, illustrated at top of page 798.



ENGLISH PRECEDENT No. 143

SHOP FRONT, STAMFORD, LINCS.

Old work of the nature of this shop has essential qualities which have power to charm us in an extraordinary degree. But it can never be too much insisted upon that such examples should not be so much studied from the point of view of fitting them into our present scheme of things, as to discover what made them in their own day practical and useful, and has yet survived the passage of a hundred years of change. —[E. MAXWELL FRY]



LETTERS FROM READERS

Bungalophobia

SIR,—In connection with the controversy in your columns on the subject of Mr. Stanley Casson's bungalow in Cornwall, the following experience of a similar type of structure in which I am at present living may be of interest.

It is a district of Cotswold character, and the local authority is endeavouring by peaceful persuasion to improve the general character of building in the neighbourhood. They are doing this by means of an advisory architectural panel, appointed according to the advice contained in the Minister of Health's circular relating to housing and town planning. Making use of the gratuitous advice offered by this panel, the local authority were able to approach a speculator—who desired to erect an appallingly ugly sheet asbestos structure—with an entirely fresh proposition, costing not a penny more (if the two were put out to public tender), containing exactly the same accommodation equally conveniently disposed, and comprising quite a seemly structure of its kind. In spite of this entirely voluntary and generous service on the part of the panel architect concerned, the man refused the seemly and built the chaotic. The only ounce he would concede from his pound of flesh was a consent to use grey instead of pink asbestos slates.

Here is a potent illustration of how a modern speculator works havoc on misguided persons like, as far as his Cornish bungalow is concerned, Mr. Casson must have been : a man who inquired the price of this structure when it was completed was told that it could be had for a modest £650 on its site (valued at about £40). This, let Mr. Casson mark, was for a structure of a purely temporary character, having a useful life of not longer than twenty-five years at the outside, with no main drainage, company's water, electric light or gas, its only amenities those of adjoining premises of like character. To my own personal knowledge the materials for this building cost our speculator friend a little over £100; to this may be added the cost of ground above stated, his own time and that of a labourer for six months as his entire labour costs, plus the substantial profit necessary to make up the respectable figure of £650.

I suggest to Mr. Casson that architects could not compete with this even if they desired or tried. Is it not too serious a matter, in this time of national stress and the need for economy and wise spending, to sport with ? Any body of men seeking powers to deal adequately with these speculators is worthy of the widest support and sympathy, and let us not hinder the movement with idle talk.

And what of the manufactured article? What country builder is there that would not be glad of the job of putting up a well-designed and purpose-made article at two-thirds of the cost of manufacture, carriage, and foundations, chimneys and fixing ? I venture to put it to Mr. Casson that the case for the manufactured article cannot be substantiated today. It is uneconomic and in every way unsatisfactory as compared with the purpose- and local-made job. The war-time hut may have been different, but I rather think that it is an anachronism today; who would have one's residence designed by a Royal Engineer and be proud of it ?

Then comes the railway carriage and its more modern counterpart, the disused omnibus body. But may not these even, when dire necessity dictates their use, be made to look respectable? The accompanying illustration shows that where there is a will there is a way. This transformation was carried out by the owner who, although he may have been poor, was at least useful, for it cost him precious little.

It is the kind of public of which Mr. Casson is unquestionably a member, that requires to readjust itself. The architects are all right and are doing admirably the very things Mr. Casson demands, if only he will allow them to continue the good work in peace.

THOMAS THOMSON

SIR,—Mr. Stanley Casson accuses me of expressing myself crudely, and in the last sentence of his latest letter throws doubts on my sincerity. I hesitate to occupy further valuable space in refuting the statements of one who buys bungalows and clothes ready made, the more so as Mr. Casson's transparent honesty makes it unlikely that he will be led to see the errors of his point of view.

Any architect of experience knows that the first considerations in designing a house are the questions of aspect, outlook, environment and contours of the ground. (We are, of course, assuming that the foundations are reliable.) This being so, it is absurd to talk of the possible success of standardization.

It is impossible to compare architecture with law, medicine and the Church, as Mr. Casson does.

Architecture deals with things seen. The other three deal with things more or less unseen. Did the medical profession drive the quack off the field by descending to the quacks' level? This is what Mr. Casson asks the architect to do. Did lawyers drive the unprofessional practitioner off the field by descending to his methods of doing business? This, again, is what Mr. Casson asks the architect to do.



Before and after. The transformation of an old railway carriage into a modern bungalow (with grey asbestos slates) is described by a correspondent in a letter on this page.

The Church suffers quack religions because it knows that they will pass away, as all freak things die and perish. In architecture, the traditionalist will ultimately triumph for the same reason that the whole teaching of history proves that every department of human industry is founded on evolution and continuance by selection of the finest elements from passing phases.

If Mr. Casson's policy ever comes to be universally adopted (" ready-made articles "), then true art and craft will die. No real craftsmanship could ever be found in a house of £350. Such a house might with difficulty be made water- and weather-tight for five years.

If there is any question of pride, it is pride in the long and honourable traditions built up by many generations of worthy and noble ancestors, who placed sound workmanship and beauty before all else; it is nonsense to state that there is not sufficient money in the country to do the right thing. The Irish sweepstake proves that.

Mr. Casson admits that he does not wish an ideal home. No architect of repute wishes to work for such a client.

WILLIAM DAVIDSON

Preservation of Old Buildings

SIR,—Lest it should be thought that the Society for the Preservation of Ancient Buildings is always ready to criticize the way old buildings have been restored and never to praise, may I, on behalf of my members, make public the Society's gratitude to the Anglo-American Oil Company for the care they have taken in their treatment of 25 Queen Anne's Gate, the corner house in the most perfect of London's few remaining early-eighteenth-century streets?

It is not too much to say that the preservation of Queen Anne's Gate depended on the action of this company in allowing their architects, after consultation with this Society, to strengthen the foundations and walls and rebuild the upper part of the building in such a way that the original front remains unspoiled.

This building had been condemned by the L.C.C., who served a " dangerous structure " notice on the owners. The urgent need of additional office room could have been met by pulling it down and rebuilding, or the old building could have been marred in the reconditioning. In either case a precedent would have been created for similar methods as other houses in the street became due to repair.

The precedent which has now been created is a formidable one with which to confront the potential spoiler of noble work, whether in London or in the country, especially as the interior office arrangements are such as to silence those who believe efficiency is incompatible with the use of an old building.

A. R. POWYS
(SECRETARY, S.P.A.B.)

Modern Architecture

SIR,—The article by Sir William Crawford, in a recent issue of THE ARCHITECTS' JOURNAL on " My New Building," is as forthright and vigorous as his personality.

His boldness is invariably admirable, and his new building is typical of the man. He is a pioneer and always will be. For that reason I admire his latest effort.

But it does not exactly suit my own taste. Quite frankly I do not feel a hundred-per-cent. appreciation of the extreme and ultra-modern ideas in building construction: they are hard and result in rooms being box-like.

Many of the rooms of extreme modernistic design look more like prisons than liveable rooms. I cannot hope that the modernist will agree with me in this respect, but we must realize that very nearly a third of our life is spent in our offices, and the more pleasurable they can be made, the better.

I do agree, however, with Sir William's idea of getting the maximum amount of light. Some architects forget that the human being loves daylight. It is all very well to get beauty in design and a delightful expanse of brickwork, but to get this artistic effect at the expense of perfectly light rooms is, in my opinion, a great mistake.

A. J. GREENLY

The Control of Building

SIR,—May I correct one sentence which seems accidentally to have gone wrong in the extracts you printed in your last issue, from my long paper delivered at the R.I.B.A. on November 17?

Near the bottom of the middle column on page 764 I am made to say " do not over-estimate the effect or geographical extent of Parliament." This should be " do not over-estimate the effect or geographical extent of local Acts of Parliament."

A. N. C. SHELLEY

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Plight of the British Granite Industry

THE plight of the British granite industry was discussed in the House of Lords last week, when Viscount Mersey asked the Government whether any development could be made in the employment of British labour and material in the quarrying industry, more particularly as regarded road construction. He said that the owners of the granite quarries in Cornwall, the Midlands and Scotland, could not or did not meet the requirements of the highway authorities for granite kerbs for road construction. Nearly all our granite kerbs at present came from Norway. Apparently our quarry owners were unable to produce the kerbs in anything like sufficient time, and they were unable to produce them of the required length. The owners said that there was not sufficient skilled labour available. In Norway, semi-skilled labour was employed to produce the kerbs, which were machine-cut. Another answer of British quarry owners was that the road authorities should use a different sort of material. The Unemployment Grants Committee were very much exercised over the position, and the Chairman, Lord St. Davids, had stated that it might be well for the Government to consider opening a quarry of their own. While he (Lord Mersey) did not advocate that, he asked the Government if they could throw any light on the incapacity of the British quarry owners to deal with a matter which required very different treatment with a little more vision and a little more activity.

Lord Cushendun, however, declared that Lord Mersey had been unfair to the quarry owners. Our persistent free trade policy had killed the granite industry in this country.

Lord Ponsonby, the Parliamentary Secretary to the Ministry of Transport, said that the present state of affairs was very disappointing. There had been an enormous increase in road construction in recent years. The present Government had approved the expenditure of £50,000,000 during the last year for the construction and widening of classified roads. Although a gigantic amount of broken stone was required—12,000,000 tons a year for 40,000 miles of classified roads—only 172,000 tons had been imported in the last nine months, so that no particular problem arose with regard to broken stone. But the question of granite kerbs was different. British granite was undoubtedly superior to concrete kerb, which was being manufactured now under the orders of some local authorities in their anxiety not to import foreign granite. The granite kerbs, however, were far more durable and more satisfactory. Hundreds of thousands of feet of granite kerb were required. In Leicestershire very satisfactory progress had been made in the production of granite kerbs. In the past three months 4,000 tons had been produced, compared with 3,500 tons last year. The owners were

making every effort to get their organization into a more efficient state, and were succeeding. No blame could be attached to local authorities, which were hampered by the question of price. It was cheaper to send granite kerbs from Norway to the East Coast of England than from the West of England. It would be most unfair not to realize that the quarry owners were up against difficulties. The owners might consider the question of coastwise steamers for carrying this stone. The Minister of Transport had recommended that they should set up within their industry an organization devised to secure efficient propaganda in favour of British quarry products, and that they should adopt a policy of standardization and secure co-operation between the industry and various transport agencies for prompt and reliable deliveries, if need be by seaborne transport. There were indications that steps were being taken to improve matters, but a great deal remained to be done. There was no question of a subsidy, nor of protection, but simply of a lack of efficiency and a failure to realize the great opportunity that was within the reach of the industry. He felt that they could put their house in order and meet the demand that existed for their material.

Regional Planning Committees

At question time in the House of Commons Sir K. Wood asked the Minister of Health whether he proposed to appoint an advisory committee consisting of experts in town-planning, representatives of the local authorities, and civil servants, to consider the present schemes of the regional town-planning committees and select those which could be put into immediate operation.

Mr. Greenwood said that many reports had been issued by Advisory Regional Committees, but these were far from being approved schemes. No regional schemes had been approved, though many proposals of a regional character were embodied in approved town plans or preliminary statements and several had been or were being carried out by local authorities. He was not satisfied that any useful purpose would be served by such a committee as that suggested, but the matter was being further considered.

Prices of Building Materials

Mr. Raynes asked the Minister of Health whether, in view of the probable increased activity in the building industry consequent upon the five years' building programme, he would say what steps he proposed to take in order to prevent unwarranted increases taking place in the prices of building materials.

Miss Lawrence, who replied, said that with the help of the Inter-Departmental Committee on the Prices of Building Materials, the Minister would, of course, continue to watch very carefully any variation in the prices of building materials. He did not think it would be desirable at the present stage to anticipate the action which he might have to propose if unwarranted increases in those prices did take place.

Lead Poisoning

Mr. Grahame-White asked the Secretary of State for the Home Department if he could state the number of cases of lead poisoning notified, and the number of deaths which had occurred since the imposition of the new regulations dealing with the use of white lead.

Mr. Short, who replied, said that the regulations under the Lead Paint Act came into force on October 1, 1927. During 1928 eighty-seven cases were reported, including twenty deaths. During 1929 there were seventy-five cases, including ten deaths; and during the nine months ending September 30 last there were forty-three cases, including nine deaths.

QUESTIONS THAT ARISE

Damp Wall

J. J. E. writes: "*I am tempted to reply to W. A. D. regarding his views on curing the dampness to some basement walling, on page 739 of your issue dated November 12. No doubt his suggestions are sound, but they cannot be regarded as inexpensive, and your correspondent's client appears to require the work to be carried out at the minimum of expense. Taking up so much of the area paving and forming a vertical dampcourse, as well as cutting out plasterwork internally, will leave very little change out of £75.*

"*To my mind, the dampness in the house, which is described as an old building, has probably reached its height. If the plaster were cut away to the external walls of all the rooms affected, and the walls rendered with a waterproofed cement, from the floor to two feet above the present dampness, as suggested by J. E. K., I feel that this would effect a cure.*

"*By carrying out the work in this manner, the considerable expense in cutting away externally for a vertical dampcourse would be saved. I do not wish in any way to belittle W. A. D.'s ideas, but I have found that so many clients in these days ask for cheapness in their architect's solutions.*"

[We have submitted the above letter to our expert, who has sent us the following reply:—]

I am interested to read J. J. E.'s views in opposition to mine on the question of a cure to a damp basement wall, and I take a further opportunity through your columns of expressing my opinions.

J. J. E.'s chief weapon appears to be cheapness, and I realize the necessity of studying a client's pocket. It is, however, no use spending money in making the upper rooms habitable, and leaving the lower, possibly servants' quarters, to take care of themselves.

J. J. E. also feels confident that his method in cutting out the plasterwork internally, and rendering from the floor to a height of 2 ft. above the dampness, will provide a cure. I doubt it. In fact, I have seen walls, which are not rendered externally as these, treated in this manner, and in due course the dampness has risen above the new work.

In this case the dampness enters the wall above the dampcourse, and the walls being rendered externally provide no escape for the moisture except through the plasterwork.

J. J. E. is simply covering up the damp walling and hoping for the best. The obvious necessity is to keep further dampness from penetrating, and with this end in view I consider that the provision of a new vertical dampcourse is a necessity. W. A. D.

Drainage

M. J. writes: "*There is a 12-inch surface-water drain running 3 ft. inside my fence on my property for a distance of 25 ft. I understand that the drain has been there for twenty years, before my house was built and the ground fenced round. Have I any claim on the U.D.C. for using my land to run their drain through?*"

It is unnecessary, in my opinion, to consider the numerous points that would arise if the interval of time were less than the period stated in the question before me, as they do not arise.

In my view, no action will now lie against the U.D.C. for trespass owing to the lapse of time.

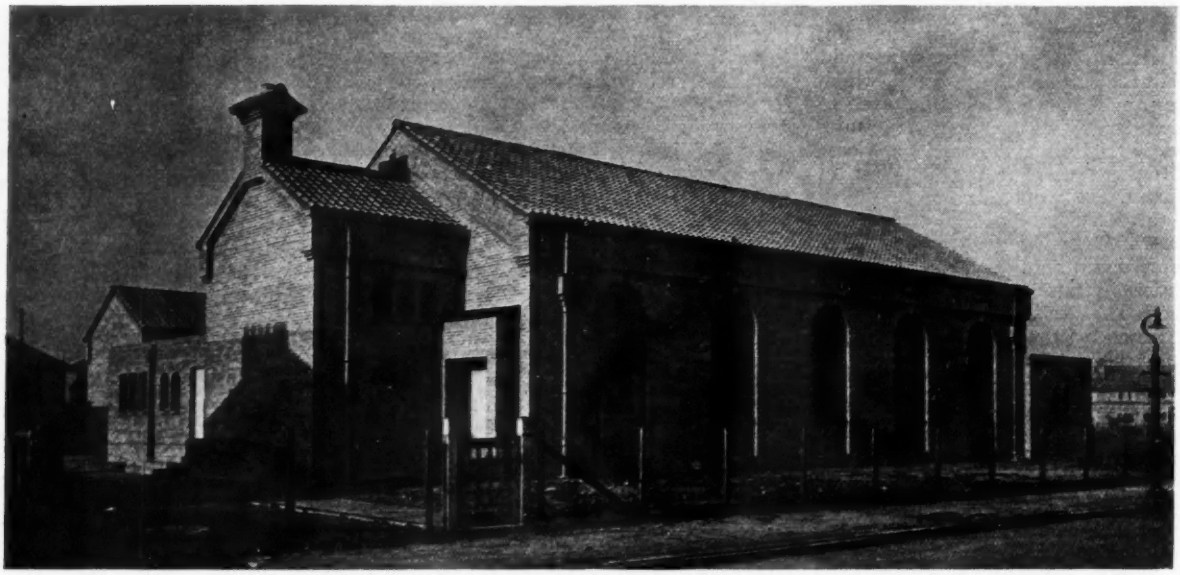
It may be that you would have an action for damages against the vendor of the property if he did not disclose in the contract to yourself the existence of the drains, unless the contract contained a condition to the effect that the property was sold subject to all rights of drainage.

I have not got this document before me, and in the circumstances I am unable to express a final opinion on the matter.

In my view the title to the property ought to be investigated, in order to see whether the existence of the drain appears in the deeds.

An investigation of the title deeds and the contract for sale to yourself should be made by your solicitor, who can then advise you fully on the facts before him, as owing to the absence of these documents the answer is too problematical to venture an opinion.

E. F. I.



A view from Sedgemoor Road. The entrance shown gives direct access to the main hall, which is lighted by the five large semi-circular-headed windows. The walls are constructed of hand-made sand-faced bricks, and the roof is of red and brown tiles.

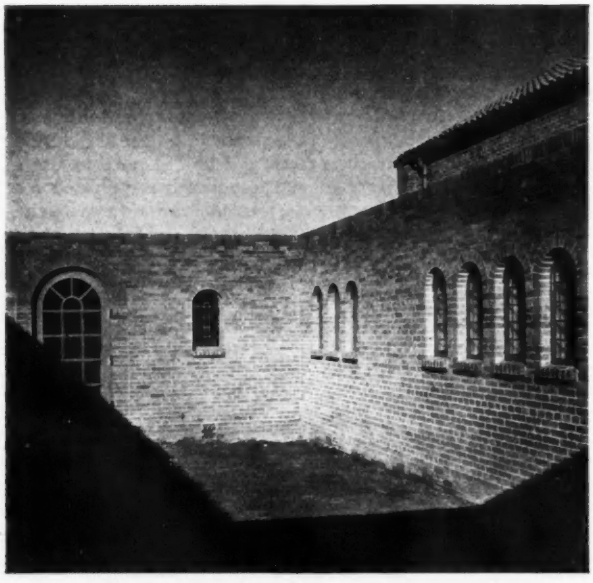
THE CHAVASSE MEMORIAL HALL, LIVERPOOL

DESIGNED BY QUIGGIN AND GEE

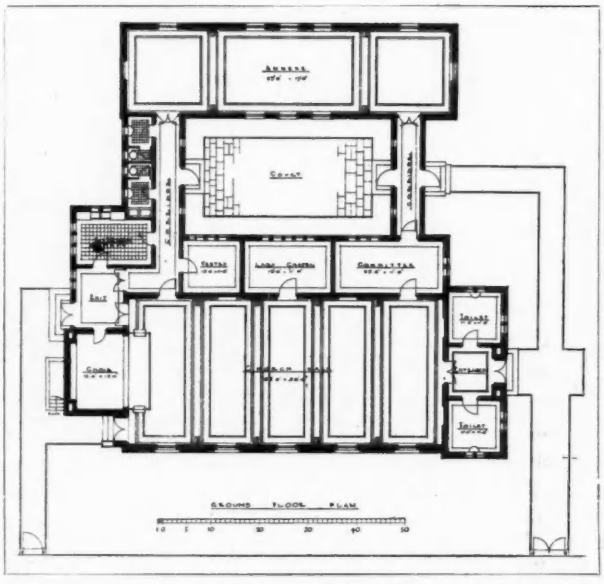
THE Bishop Chavasse Memorial Hall, Sedgemoor Road, Norris Green, is situated in one of the new Liverpool housing areas, and is the first of a group of church buildings.

The problem that faced the architects was that of designing a building, low enough not to compete with the church, to be erected at a later date, and, at the same time, to give it the necessary architectural treatment to stand out from the surrounding houses, although not much higher or larger in bulk. In its solution the roof plays a significant part. The small tiles, rich red in colour, intermixed with brown, form a pleasing contrast with the multi-coloured hand-made sand-faced bricks below.

The interior of the building comprises two halls, the larger of the two functioning as a chapel pending the completion of the church, a vestry, Lady chapel, committee room, toilet rooms, and kitchen quarters. An interesting experiment was carried out with the plasterwork in the main hall; this was coloured in mixing, thus avoiding further decorations. The treatment appears to be very satisfactory.



A corner of the courtyard. The door gives on to the corridor connecting the small hall and committee room; the windows of the latter, together with those of the chapel, are seen on the right.



The central feature of the ground-floor plan is the main hall, measuring 65 ft. by 30 ft. The small hall, although 2 ft. longer, is only 17 ft. wide. There are five separate entrances to the former.

THE SPECIFICATION WRITER

Specifying for Demolitions

THE disappearance of the Hotel Cecil and of Lever House (formerly De Keyser's Hotel, of which progress photographs appear overleaf), is yet another reminder that permanence is not an asset in modern civilization. These buildings, which would have been capable of withstanding natural decay for at least a century, have been pulled down to give place to more revenue-producing structures.

Whether the American idea that anything from a Ford car to a skyscraper has only a comparatively short economic life be the right one is a question for the political economist rather than the architect. But the latter has in these days to supervise the destruction as well as the erection of large buildings, and to do so he must be able to specify what is required for the housebreaking.

In preparing a specification for demolition of other than derelict structures the architect is confronted by a totally different set of conditions from those of a new building. He is not out to spend but to save money, and in competitive tenders the contractor who offers to give the most credit will get the job.

Therefore the specification writer will begin with the various fittings, fireplaces, overmantels, lavatory basins, sinks, w.c.s, etc., which he thinks it will be more economical for his client to store for re-use. Here he must exercise judgment, for probably these fittings are somewhat out of date, and it will depend upon the class of building that is to be subsequently erected whether it is better policy to allow the housebreaking contractor to give credit for them and for the client to pay the difference between the credit and the cost of the most modern style of article.

Generally it will be found advisable to retain the best of the existing fittings for use in the second-rate parts of the new building, and to accept credit for all others. It is seldom worth while to specify for the retention and re-use of hot water boilers, cooking appliances, or parts of heating systems, but it is well to see that proper credits are given. To break up and remove a large boiler from a basement may barely cover its value as old iron, but there will be gunmetal valves and taps that are easy to unscrew, and which can be sold for a fair sum. This applies to all bib valves and taps in radiators and sanitary work generally.

The next item will be the doors and windows and any panelling in the rooms; if the building is comparatively modern these should represent a substantial credit. Flooring, especially if grooved and tongued boarding or wood blocks, is probably worth nothing, but sound joists and roof timbers should show a credit, as also should the lead and other roof coverings. But here the architect must be somewhat generous, remembering that the work of removing these is considerable, and also that the percentage of breakages is great. Genuine old tiles will, of course, fetch money, but old slating is probably only useful for dampcourse work, or pinning up underpinning.

Lastly comes the question of walling, and here the optimistic architect may receive a surprise and find the contractor's credit very much below his estimate. Although pulling down is a more rapid proceeding than building, and necessitates less scaffolding, still there will be hoardings and fans to protect the public if the building is in a town, and these should be specified.

Then again in large towns the work may have to be done at night or between certain hours, and with the precautions taken against raising dust, all this will cost money.

Finally, the adjoining building, or buildings, may require shoring or protecting from weather on any exposed party walls; the contractor should find this work specified in detail, as he will set the cost of it against his credits. But even if these costs are not excessive, it still has to be remembered that the bricks will need cleaning and the stonework re-working, so that in the end the sale price of the materials will only about pay for the labour and cartage, and if the bricks are to be stacked for re-use then the cost will be charged to the building-owner, and this should be clearly specified.

If there is an existing basement to be filled in, this should be specified, as it may save the cost of removing brick and stone rubbish, but it should be made clear that only this material, and not broken laths and plaster, is to be used. This is a point to be carefully watched, as it is a tempting dump, and may cause trouble when it begins to settle later; and the building contractor has no means of knowing what has been used for making up.

Old drains should be specified to be grubbed up, and all cesspools emptied and cleaned with lime before being filled in. Old wells may prove a difficulty, but if these cannot be filled in, the best way is to cover them in with a thick slab of concrete.

In any large job it is always wise to make a separate pulling-down contract and to stipulate that the contractor shall leave the site with a proper hoarding and gates. The building-owner will buy these from the housebreaker, and the architect should include in the building specification that the building contractor shall give credit for them in his estimate for new work.

Where the final credit due to the owner is likely to be small, it is sometimes the practice to specify a sum which the contractor is to deposit with the architect before signing the contract. This sum is to be returned to him upon the satisfactory completion of the work, the object being to ensure that the contract will be completed, as the latter part of a demolition contract is for the housebreaker the least remunerative. LL. E. W.

Electric Storage Heating

EXCEPT for intermittent local heating on a small scale, electricity has not come very prominently into vogue, due almost entirely to the high cost of current. With a view to increasing the consumption of electricity during off-load periods, many supply companies are prepared to deliver current at ¼d. per unit during specified hours. General electric heating on this basis, however, involves some system of storage of the heat, if it is to be applied throughout the whole of the day; hence the various systems of water and oil storage in which heat is accumulated by immersing the electric heating element, the heat being then utilized, when required, by use of the calorifier for transferring it to a water-circulating system.

When properly installed and insulated against radiation losses, these storage systems can show a fairly high efficiency, ranging up to 90 per cent. of the heat stored. Direct electrical radiation, being 100 per cent. efficient, can be considered on the basis of the heat delivered per electric unit supplied, and a similar figure for electric heat-storage systems can be arrived at by deducting the loss in storage. When, however, cost comparisons come to be made with other systems, it is obviously imperative that the figures be taken on the same basis in both cases. A useful guide is that a modern, coke-fired central-heating plant has an average efficiency of about 50 per cent. Comparisons that assume a lower figure are not only misleading, but directly detrimental to the development of electrical power for heating.

Electricity, however, has advantages peculiar to itself, and, despite the fact that a direct comparison of costs of electricity and fuel may show the former to be very high, the low cost of the plant involved, the small space occupied, the absence of a central

heat-generating plant demanding attention, together with the convenience and cleanliness of electric heating, are factors which in many cases are sufficient to discount the difference in price.

The cost of any system must include not only that of the plant to be installed, maintenance and fuel costs, and rental of space occupied, but must also have regard to the labour and attention involved in operation, personal convenience and, above all, the absence of destructive effects on the rooms which are heated. On these lines electricity can certainly present a very strong case to many users.

A. H. H.



On this and the facing page are reproduced three progress photographs of the demolition of Lever House, formerly De Keyser's Hotel, London. It was six stories high, with two basements, and covered a site roughly two-and-a-half acres in extent, bounded on three sides by the Victoria Embankment, New Bridge Street, and William Street respectively. The principal façade faced the Embankment and Blackfriars Bridge. The photograph shows the progress made with the demolition work after four weeks.

Repairing Roof Coverings

LEAD

OLD lead roofs are often found laid on oak boarding, but in re-laying deal boarding should be specified, as lead laid on new oak rapidly decays. When it is impracticable to re-use the old cast lead sheets, milled lead at 6 or 7 lb. weight should be substituted, and will be as lasting, although the colour is always harsher owing to its greater purity. Sheets should not be larger than 8 ft. by 2 ft. 6 ins., and if they are laid to a steeper pitch than 20 degrees the joints should be diagonal to the slope to avoid the tendency to creep. Lead tingles are best specified 9 ins. long by 3 ins. wide, nailed to boarding and bent over edge of undersheet with the outer sheet closely dressed over. The lap should be wide, and an added safeguard against capillary attraction is sometimes provided by bending up the lap edge of the under sheet and dressing it down over the nail heads. Old nails were of wrought iron with flat heads, but similar shaped nails, which are now made in copper, should be specified, as they do not rust. Old lead gutters behind parapets have sometimes insufficient drips, and the lead is often cracked and thin; many of these cracks may have been repaired with solder, which results in bumps and weals on the surface, seriously impeding the flow of water. Such old gutters are best taken out and relaid, but when cracks are slight they should be repaired by burning rather than solder. Many old lead roofs are entirely hidden, and owing to their weight the woodwork of the roof shows signs of failure. In such cases there is no reason why they should not be renewed in copper.

SHINGLES

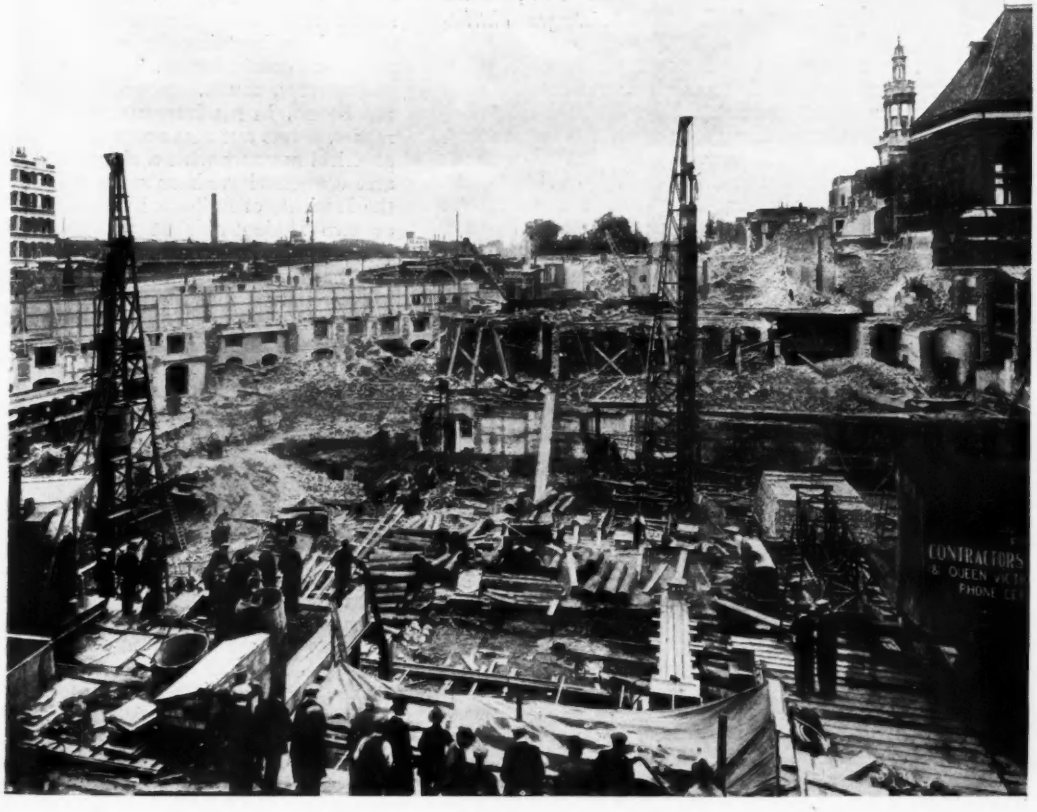
Except for church spires, wood shingles are not often met with in this country, although in Scandinavia and parts of America they are common. The most frequent defect is for the lower edge to turn up and split. This usually occurs on the south and west faces, and in laddering a spire for inspection the south face should be chosen; if the shingling is here found to be sound, it may be taken to be so on the other faces.

The shingles in England are usually of oak, 15 ins. by 5 ins. by $\frac{1}{2}$ in., and laid in the manner of slates. To make a good job the shingle should only be exposed for one-third of its length, and it should be specified to be split, not sawn. Ventilation is an important point, and one American method for ensuring it is to cover the rafters with 1 in. by 3 in. laths laid at $5\frac{1}{2}$ in. centres, so as to admit air to the back of the shingle. Each shingle should be nailed with zinc or galvanized iron nails, placed about $\frac{3}{4}$ in. from the outer edges.

[*Previous notes on this subject appeared in the issue for October 29 last.*]

After seven weeks. All the photographs are taken from the same view point in William Street, which runs parallel to the Embankment and at the back of the building. All the material was carted away from this street to avoid further congesting the other two thoroughfares which are heavily-laden with traffic. After four weeks, while demolition work was still in progress, excavating and building work commenced for the new Unilever House, which is to be erected on the site. One of the pile drivers is seen in the photograph.





After eleven weeks. Blackfriars Bridge is seen in the background. The material from the building was disposed of at the rate of 600 tons a day. The broken stone from demolished buildings is used for the making of roads; sound bricks are utilized for foundations; the white rubbish from the ceilings and the mortar from the brickwork are made into mortar; and the steelwork is cut, with oxy-acetylene, into suitable lengths, transported to steelworks and there re-smelted.

LITERATURE

LITTLE CHURCHES OF FRANCE

BECAUSE the little church of France is a cathedral in miniature and " in the little churches are to be found the experiments that were adopted or discarded by the cathedral-builders," the foreword, comprising twenty-five folio pages, largely concerned with cathedrals and churches of cathedral size, is not irrelevant to the subject from which a delightful portfolio of photographs is named. Indeed, as the author indicates, the illustrations of the *Little Churches of France* are, to a great extent, self-explanatory, particularly against a background of the general history of French ecclesiastical architecture.

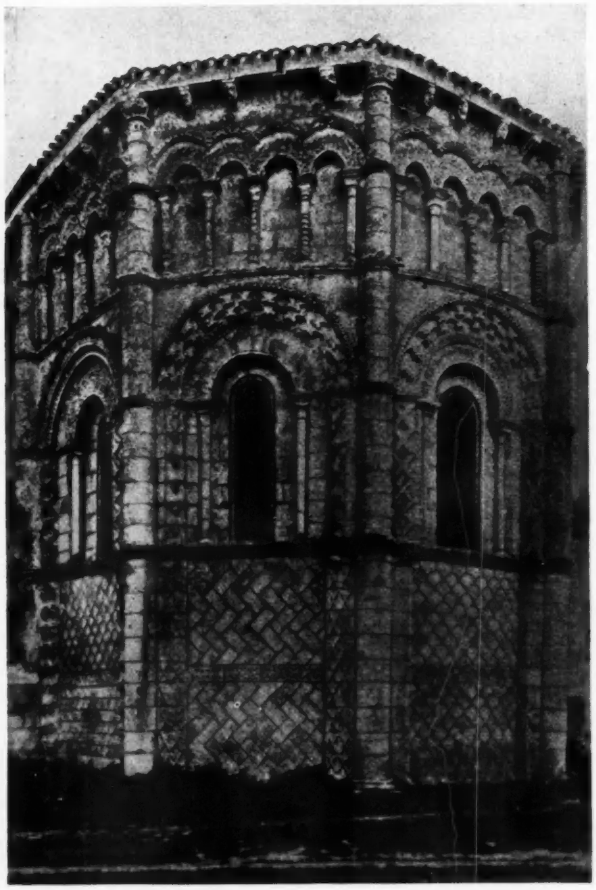
Unlike the cathedrals, the little churches were seldom built alike even in the type of plan, and Mr. Albert Chadwick has gathered from many parts of France a diversity of examples. He distinguishes, however, three definite areas, each illustrating a particular phase, as influenced by local circumstances, " where in nearly every village is a church that is a gem of its kind." Many of these date from within a century and a half of the building of Saint-Denis, a period when there occurred what the author describes as an " epidemic of church-building."

Scarcely a church was built in France during the wars with England, but another group dates from the time of recovery in the fifteenth century. The Renaissance " never achieved a worthy ecclesiastical expression in France," but the particular version of Renaissance expressed in some of the Brittany churches has a character of its own, " a mixture of the grim and the fanciful that is truly Celtic." In Plate CI, illustrating one of these, a letter " n " appears to have taken the place of " u," and one or two similarly small errors have no doubt been noted for correction—the spelling of " *trumeau*," with a superfluous second " m," is one of the most conspicuous. The use of the words " fourpartite," " eight-partite," etc., is a trifle irritating, when " sexpartite " has evidently presented no difficulty. The whole foreword would have lost nothing by the omission of its final sentence—an ugly and aggressive appendage to an otherwise well-knit résumé.

The contrasts in the illustrations are strongly marked, as, for instance, between the quiet, sweet solemnity of the portals at Béron, and the Oriental lavishness of the Saintonges district. The simple, direct Italianate church at Albi is very different from the strangely contrived bell-cupolas, beacon-turrets and spires of Finistère. But every one of these little churches offers something for enjoyment, study and reference.

V. M. C.

Little Churches of France: Their Origin, their Characteristics, their Periods. By Albert A. Chadwick, B.ARCH. London and New York: Harper and Brothers.



East end of church near Pons, in the Saintonges district.

[*From* Little Churches of France.

THE CREATIVE AND THE RESOLVENT

AFTER dwelling meditatively upon the last report of the Building Research Board one is forced to admit that there is a vital need for a better training in science for entrants into the building industry. As science develops, says Dr. R. E. Stradling, the Director, so the urgency of this need becomes increasingly evident. For example, however much specification is facilitated by the availability of reliable standards for materials, the necessity remains unabated for scientific training such as will enable makers and users to apply the standards with the fullest benefit in building operations. It is, however, believed that the movement towards the endowment of a Chair of Building is taking definite shape and that one of the older universities is giving the matter sympathetic consideration. Sir George Humphreys, K.B.E., the chairman of the Board, in his introduction to the report, points out that as an immediate practical measure with a similar object arrangements have been made whereby the Institute of Builders maintains one or two studentships at the Building Research Station. The first studentship has already been awarded.

It is reported that the progress made in the general and special researches in hand at the Building Research Station, and the increase in the volume of special investigation and inquiry work, has been maintained during the year. Particular mention is made of the investigations into the flow of concrete under load, and into the corrosion of steel embedded in breeze and clinker concrete. The growth in intelligence work has been no less noticeable; the number of inquiries dealt with, apart from those of a minor character, has risen by slightly over 50 per cent., reaching a total of 632.

All the acoustics experimental work of the Department will in future be concentrated at the National Physical Laboratory. The Building Research Station will, however, remain responsible for the architectural application

of results and for general contact with the building industry. Another new arrangement is the proposal that the Station, in conjunction with the Geological Survey and Museum, should undertake a survey of natural building stones. The survey will include a study not only of the geological, petrological, physical and chemical properties of the stones, but also of their general economic importance.

Certain sections of the work undertaken by the Station, in conjunction with the Committees of the British Engineering Standards Association engaged in the preparation of standard specifications for building materials, have reached a stage when publication of specifications may shortly be expected. This applies, for instance, to the specification relating to quicklime for plastering purposes and clay roofing tiles.

Report of the Building Research Board for the year 1929. Department of Scientific and Industrial Research. London: H.M. Stationery Office. Price 2s. 6d. net.

ARCHITECTS' ANNUAL REPORT

THE forty-second *Annual Report of the Sheffield, South Yorkshire and District Society of Architects and Surveyors* has recently been issued.

In addition to the Council's report for the year ending April, 1930, the report contains the statement of accounts, list of members, rules and synopses of lectures delivered during the past session. The total membership of the Society now stands as follows: 9 Honorary Members; 67 Fellows; 55 Associates; 4 Students and 3 Laymen, amounting in all to 138, as against 135 of last year. It is estimated that 44 new members have been obtained by the canvassing of districts in the Society's area which are out of touch with Sheffield.

Business dealt with by the Society during the year included such matters as architectural competitions, regulations governing the transfer of allied societies' members, the Registration Bill, trade discounts to builders, the Fitzalan Market Scheme; and questions with reference to salaried members of the profession, and the employment of other than official architects to design some of the poor law buildings and new Council schools.

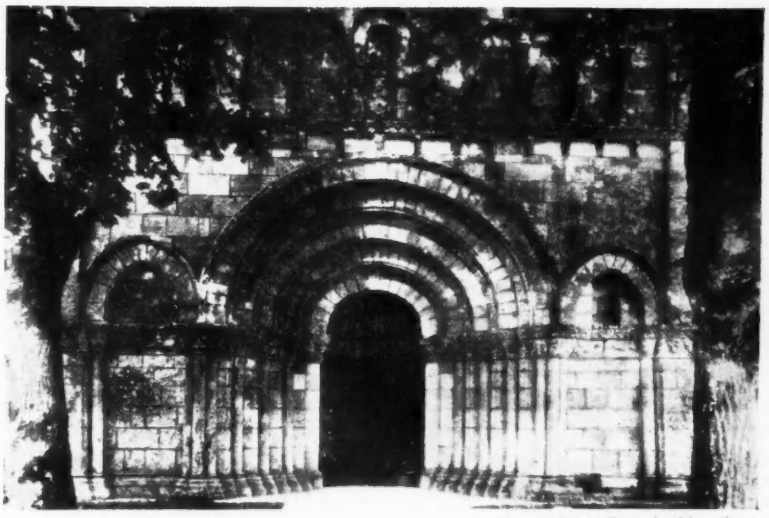
The frontispiece is a portrait of Mr. W. G. Buck, F.R.I.B.A., the president.

Annual Report of the Sheffield, South Yorkshire and District Society of Architects and Surveyors.

PUNCH'S ALMANACK FOR 1931

MR. PUNCH in his Almanack for 1931, upon the cover of which he is depicted (with every justification) by Frank Reynolds in the guise of an Old Master, brews again that flowing bowl incredibly compounded of sheer elegance and gentle raillery of which he alone, it seems, possesses the masterly recipe. Every architect should be a connoisseur in diverse ways of living: such will quaff it with avidity. At the risk of being invidious, shall we confess that we like best, among the many excellent coloured pages, the fantasy of Arthur Watts, "Homesickness; or, the Call of the Jungle"? Here the pathetic monkey of the organ-grinder, his red coat the one spot of colour in a quiet scheme of blues and greens, is making tracks across what might be Queen Anne's Gate, did we tolerate organs there, irresistibly drawn by the piled exotic greenery on a florist's cart. Fougasse and Gilchik, Bateman, Ernest H. Shepard and G. L. Stampa take off aspects of the human comedy in serial sketches. A. P. H. graces the literary pages with a condensed musical comedy, in which the device of ellipsis is pricelessly exploited; and so does Evoe, with a fairy tale about a match played for the hand of the Princess Fifi upon "the Royal and Awful Golf-Course of Gamboogia." In fact, the mixture as before, but, so it seems, more ambrosial than ever. H. F.

Punch's Almanack for 1931. London: Bradbury Agnew & Co., Ltd. Price 1s. net.



[*From* Little French Churches.

Romanesque portals at Beron, near Paris.

SOCIETIES AND INSTITUTIONS

ACOUSTIC PROBLEMS

"The Influence of Acoustics on Architectural Design" was the title of a lecture delivered by Mr. Hope Bagenal at the Welsh School of Architecture on Wednesday last. Mr. W. S. Purchon, M.A., A.R.I.B.A., presided.

The lecturer dealt in a very illuminating manner with a variety of acoustical problems showing not only the very special need for care to be taken in the planning and arrangement of rooms used for acoustical purposes in the original design of the plans, but also laying stress on the great importance of careful consideration of the materials used, and emphasizing some of the difficulties which had arisen through the abandonment of traditional materials.

A design subject involving special acoustical requirements had previously been set to the students of the Welsh School of Architecture, and after the lecture Mr. Bagenal discussed each of the sketch designs submitted in detail with the students. On the following morning he gave a second lecture in which he dealt more particularly with the actual calculations.

TOWN PLANNING

An informal dinner of the Guildford Chapter of the South-Eastern Society of Architects was held recently at the Lion Hotel, Guildford. After the dinner a lecture was given by Mr. H. V. Lanchester, on "Town Planning."

The lecturer dealt with the various historical stages of town planning, laying special stress upon the importance of zoning, under which system districts could be expressly reserved for definite purposes. He pointed out how many of the muddles under which our towns now suffered had come about through residential districts being converted for business use without any forethought as to the consequent developments.

R.I.B.A. LONDON ARCHITECTURE MEDAL

The Council of the R.I.B.A. announce that the latest date for submission of forms for the London Street Architecture Medal is February 28, 1931. The award is made for a building completed during the three years ending December 31, 1930. The architect of the selected building will receive a bronze medal.

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presented by the R.I.B.A., together with a diploma signed by the jury of assessors. A suitable tablet will be fixed to the chosen building. Forms of nomination are issued with the first two numbers of the *R.I.B.A. Journal* in each session.

R.I.B.A. ELECTION OF MEMBERS

At a recent meeting of the R.I.B.A., the following members were elected :

As Hon. Fellows (2).

Derby, The Rt. Hon. the Earl of, K.G., G.C.B., G.C.V.O.
MacDonald, The Rt. Hon. J. Ramsay, M.P.

As Hon. Associates (2).

Orpen, Major Sir W., R.A., R.I., R.O.I., LL.D.
Partridge, Sir B.

As Hon. Corresponding Member (1).

Kohn, R. D.

As Fellows (45).

Allison, W. B.
Archer, H. H.
Ballantyne, C. H.
Banks, P. H.
Berry, A. G.
Brand, W.
Burgoine, S.
Charlewood, G. E.
Coates, H. F.
Dicksee, H. J. H.
Dyke, D. N.
Evans, W.
Fowell, J. C.
Fraser, B.
Hicks, H. L.
Hubbard, G. E.
Kerr, H. V.
Kislingbury, A. V.
Leith, G. E. G.
Lorne, F.
Love, R. M.
Miller, S. R.
Mitchell, G. A.
Mortimer, A. L.
Moss, H. E.
Mountain, W. J.
Perren, F. A.
Prince, W. J.
Robinson, J. C.
Sayner, J. H.
Scott, A. T.
Smith, C. B.
Smith, W. J.
Tansley, H.
Thomas, E. J.
Trew, H. F.
Wynne-Thomas, D.
Aherne, De Lacy
Gamble, J. G.
Mayell, A. Y.
Tiffin, H. S.
Wade, F. W.
Webber, H.
Webster, F. C.
Williamson, J. W.

As Associates (102).

Anderson, W. D. G.
Ashworth, A. T.
Baillie, I.
Bana, R. B.
Billiards, H.
Bintley, L.
Bishop, J. W.
Bolton, J. H.
Brodie, M. B. (Miss)
Bruce, R. A.
Budgen, P. G.
Burles, D. R.
Burrington, T.
Carr, D.
Carter, F. R.
Chackett, L. A.
Coghlan, B.
Cooke, A. J. (Miss)
Cooper, R. W. G.
Corlett, W. S.
Couldrick, H. C. C.
Coulter, H. G.
Cruickshank, G. L.
Cusdin, S. E. T.
Davis, E. E.
Easton, R. M. (Mrs.)
Elleray, F. R.
Ellis, H. H.
Farmer, H. C.
Fell, I. B.
Folkes, J. H.
Forbes, H. T.
Ford, G.
Ford, H. H.
Freeman, P. G.
Gardner, E. G.
Hargrave, F. C.
Harland, P. J. B.
Harris, K. W. F.
Harris, R. O.
Hartley, J. S.
Henderson, P. P.
Hinton, R. C. H.
Hurden, S. A.
Innes, D. W.
Ironside, W. D.
Jackson, H.
Jewell, A. E.
Jolley, V. A. P.
Kemp, W. C.
King, L. E.
Kingsford, G. M.
Lacoste, G. A. C.
Lavers, R. S.
Lee, R. E.
Lewis, G. N.
Llewellyn, G. P.
Lloyd, W. T.
Luke, H. S.
Lumley, D. F.
MacDonald, A. I. D.
Marrett, E. M.
Marshall, H. B.
Martienssen, R. D.
Maybury, M.
Mellor, F.
Nightingale, D. E.
Noad, R. M.
Parr, J. W.
Peel, A.
Pertee, W. C.
Playne, E.
Polson, F. M.
Porter, H. G.
Powell, H. H.
Rea, A. J.
Reith, W. J.
Riddell, J. R.

Associates (continued).

Rose, C. A.
Rose, J. C.
Roth, S. H. J.
Rowe, G. F.
Schultz, I. S.
Shaw, M. M. (Miss)
Smith, A.
Smith, J. J.
Stephen, N.
Tanton, H. J.
Thompson, E.
Tolson, J. R.
Tomkins, C. J.
Twigg, W. L.
Vaughan, O. (Miss)
Veitch, K. A. (Miss)
Walker, W. C.
Watson, L. K.
Webb, F. H. H.
Wilkinson, H. H.
Williams, S.
Wingate, W. H.
Wright, L.
Yorke, F. R. S.

As Licentiates (65).

Arnold, W. J.
Bailey, G.
Baker, A. H. I.
Ball, J. H.
Baker, T. J.
Barman, C.
Bernard, O. P.
Boag, R. S.
Bowman, D.
Bright, T. L.
Brodie, A. S.
Burrows, R. W.
Castley, J.
Chrisfield, D. F.
Cross, K. M. B.
Cruickshank, J. C.
Daniels, J. H.
Davies, G.
Dickins, E. F.
Fisher, E. W.
French, J. W.
Gelder, H. E.
Greaves, J.
Grubb, T. J.
Hall, R. L.
Harvey, M.
Haughton, H. S.
Haworth, W. R.
Heathcote, A. E.
Horne, A.
Jack, D. D.
Jackson, W. H.
Jacob, J. H.
Jones, C. L.
Jones, R. W. H.
Kay, H. G.
Kelsall, J. S.
Kennard, C.
Kent, A. G. P.
Lovell, W. G.
Mant, F. G.
Miller, L. F.
Nuttall, O. H. H.
Packham, A. B.
Parr, L. M.
Price, W. H. L.
Scrase, H. A.
Searles, P. G.
Simons, G. P.
Slater, R. J. L.
Smart, L. H.
Smith, T. H.
Spackman, C. S.
Suttel, A.
Taylor, C. D.
Taylor, G. L.
Thomas, A. E.
Thomas, F. G. S.
Tulley, E. F.
Underdown, A.
Watkins, A. H.
Watson, C. H.
Webber, F.
White, A. W.
White, R. W.

EXHIBITION OF PRIZE DRAWINGS AT CARDIFF

The South Wales Institute of Architects, in conjunction with the Welsh School of Architecture, recently arranged an interesting series of exhibitions of architectural drawings at the Technical College, Cardiff.

The exhibition was divided into four sections, as follows :

1 : R.I.B.A. prize drawings, including the Tite prize, Soane medallion, measured drawings, Hunt bursary (one set) and the set of drawings with which Mr. J. B. Wride of the Welsh School of Architecture won the Rome scholarship, 1929.

2 : R.I.B.A. Testimonies of Study for the Intermediate Examination (three sets), and Final Examination (two sets).

3 : R.I.B.A. Exhibition of Working Drawings.

4 : South Wales Institute of Architects (Central Branch). Exhibition of members' working drawings.

TOWN-PLANNING INSTITUTE

Mr. F. W. Platt, in his presidential address at a meeting of the Town Planning Institute, held at Caxton Hall recently, said that they were now on the threshold of great activity under the Housing Act, 1930, and many local authorities had already taken action in the preparation of their work. The call for schemes for the re-development of both towns and villages, and indeed of many parts of the countryside, would become very insistent as lands now covered by houses and other buildings became cleared by operations under that Act.

Local authorities should seize the present as a valuable opportunity of considering their districts as a whole in consultation with parties interested, noting the potentialities, possibilities, and even the handicaps, and taking into account problems of vital importance to a district.

Consideration would be needed of the question of centralization as against decentralization, both in relation to its bearing on the prosperous town and the decaying town.

ARCHITECTS' AND BUILDERS' LUNCHEON

Under the auspices of the South-Eastern Society of Architects, in alliance with the R.I.B.A., Tunbridge Wells Chapter, and in conjunction with the Southern Counties Federation of Building Trades Employers, a luncheon was held at the Rose and Crown Hotel, Tonbridge.

Mr. J. E. Thom , who presided, said that that was the first occasion that he could recall in which they had joined in a gathering o that sort. The idea first of all came from Mr. Lovell.

Mr. Larkin (on behalf of the builders) said he was pleased that such a gathering had been possible, because if they took architects, builders and operatives, they were all one gr body working with the same idea. T y did not want confusion in their in stry, and the architect and the bui' ler had really much in common. On could not very well go on without the other. He thought that the better the architect, the better the builder. Speaking of the federated and unfederated builder, he thought that not all architects did all in their power to discriminate between the two. The unfederated builder was a source of trouble. The Federation spent a great amount of time in trying to stabilize the thing as much as was practicable. Against this, the unfederated builder said he was not going to have anything to do with it. He thought that the Federation would very much like it if architects would bear in mind that the federated builders were the people who had to bear the heat and the burden of the day. They had also had a good deal.

Mr. E. J. Strange proposed "The South-Eastern Society of Architects." He said that such gatherings were likely to be of advantage to them in material understanding. He thought that as the architects got to know the builders and *vice versa* it would tend to

make for better understanding of their duties and the possibilities in their business lives.

After Mr. Goulburn Lovell had spoken, an address was given by Mr. W. E. Watson on the report of the Building Industries Review.

TOWN PLANNING IN SCOTLAND

At the first meeting of the session of the Scottish branch of the Town Planning Institute, held in the Royal Technical College, Glasgow, a paper on "Town Planning of Built Areas: Twenty Years' Practical Experience," was delivered by Dr. W. H. McLean.

Sir William E. Whyte, O.B.E., who presided, remarked that it was his hope that the Scottish branch, as in England, would serve as the common meeting-ground between the technical and legal, official and unofficial, interests in this town planning.

Dr. McLean pointed out that owing to the lack of legislation it had not been possible to deal adequately with the built areas of towns, but it was understood that the demand for special legislation would soon be met, as all political parties appeared to be convinced of its necessity for public health and other reasons.

SECULAR ARCHITECTURE

A description of the secular architecture of Mediæval Italy was given by Sir Banister Fletcher, P.R.I.B.A., at the Central School of Arts and Crafts, London, on Wednesday last. He pointed out that the most interesting aspect of secular building activities was the picture it gave of the rise and growth of m ...ipalities, and the development of the communal idea.

MODERN DECORATION

Lecturing on "Modern Tendencies in Decoration," at a meeting of the Incorporated Institute of British Decorators, held in Manchester, Mr. Henry G. Dowling, F.I.B.D., said that there was a definite relationship between simplicity and good taste; simplicity was one of the great secrets of successful interior work, particularly as it applied to domestic decoration.

ARCHITECTURAL LIGHTING

The relationship of light to decoration was the subject of an address by Mr. R. Waldo Maitland, A.R.I.B.A., at a meeting of the South-Eastern Society of Architects, held at the School of Art, Maidstone.

The lecturer stated that in the movement towards architectural lighting we had something with great possibilities, and the fundamental idea of making lighting appliances an integral part of the architectural scheme was sound. In the many installations which conformed to the architectural lighting principle, we had already evidence that artificial lighting was attaining its true status as an art.

In architectural lighting, he said, we had a logical way of introducing artificial light, and although there were many people who were sceptical about this new outlook, he was convinced that, even with its limitations, it was a step in the right direction. Many critics of architectural lighting confined their criticism to the materials employed, but he felt that criticisms of this character did not in any way nullify the value of the principles involved.

The whole movement of architectural lighting was in its infancy, and its successful application was contingent upon the closest collaboration between the architect and the engineer.

ETCHING

At a recent meeting of the Birmingham Architectural Association, Mr. Harold H. Holden, Director of Art Education in Birmingham, delivered a lecture on etching. He demonstrated the various processes that were covered by the terms—dry-point, etching proper, aquatint and mezzotint—and by a series of slides showed the works of the great master etchers.

LAW REPORT

COST OF A HOUSE—DISPUTED AGREEMENT —OFFICIAL REFEREE AND COSTS

Lloyd v. *Oliver. Official Referee's Court. Before Sir Francis Newbolt, K.C.*

THIS was an action by Mr. Henry John Lloyd, of Bramshott Avenue, Charlton, against Mr. Geo. Oliver, of Brook Ambulance Station, Shooters Hill, to recover the sum of £1,000, being the balance alleged to be payable by the defendant for work done and materials supplied by the plaintiff in the course of the erection of a new house for the defendant at Shooters Hill Road, at 1s. 3½d. per cubic foot. Plaintiff's case was that he supplied 32,528 cubic feet, which amounted to £2,100. He had received £1,100 on account, and now sued for the remaining £1,000. Defendant by his defence alleged that the plaintiff agreed to erect the house and garage for a sum not to exceed £1,200. Defendant alleged breach of contract by plaintiff, and set up a counter-claim for damages. Plaintiff, in reply, denied that he ever agreed to build the house and garage for the sum alleged, and denied that he had committed any breach of the contract.

JUDGMENT

Sir Francis Newbolt, in delivering judgment, said in this case he did not intend to deliver more than a formal judgment, as the parties were satisfied with his decision on the preliminary point to the effect that, in a contract for building the house, no price had been agreed upon by the parties, and at the adjourned hearing the only question to be decided was a valuation of the building, but as the costs involved were large, and at the present moment, when economy in litigation was being much discussed, the facts and the procedure were of public interest, he thought he ought to draw attention to them. The Counsel in the case were concise and business-like men, even beyond the ordinary, and very helpful. Briefly, this was a dispute between two business men about a balance due, and had lasted for a year and involved the parties in expense exceeding in costs the sum due, when the case ought to have been disposed of in a few weeks for less than a quarter of this sum.

The plaintiff offered to build a house upon the defendant's plan with a small garage, and this was accepted. The plaintiff stated in evidence that his offer was to do the work at 1s. 3½d. per cubic foot. The defendant asserted that he did not agree to this, but stipulated that the price (based upon the plan and alleged specification) was not in any event to exceed £1,200. It appeared to Sir Francis to be clear that the price was not agreed, and he so decided. Both parties were wrong and must pay their own costs of that hearing. The plaintiff was therefore now entitled to be paid a reasonable price for his work, £1,100 having been paid on account. It was agreed between the parties that only one expert witness should be called on each side for valuation, and this, of course, saved a large sum in costs.

The plaintiff had issued a specially endorsed writ a year ago, and the matter was promptly and properly referred to the Official Referee. Two surveyors were employed to decide the cubic measurement, and that they agreed at 24,500 cubic feet. But the parties failed to instruct the surveyors to agree upon the *per se* price per cubic foot, or to refer the matter to an umpire in case of dispute. But in Sir Francis's opinion, the cheaper and better course would have been to have appointed the Official Referee to be arbitrator, and the decision would obviously have been the same as now reached ten months later, with a clear saving in costs of £300 or £400. The case, however, dragged on. Finally, the adjourned trial, to decide the valuation, took place on October 30, and raised two very important questions. The first was

this : A judge or legal arbitrator could and must decide upon a disputed value on evidence, whether expert or otherwise, and where there was a conflict he must, as a rule, prefer one witness to another, but where two experts appeared to be equally competent and careful and yet diverged so greatly that one or both of them must be extravagantly wrong, it was extremely difficult for the Court to arrive at a figure which was even approximately right. Avoiding all detail, the plaintiff's surveyor said that the total value was £1,811. The defendant's surveyor put the figure at £1,108. He had to decide between these two.

The second point was little known to the public and generally misunderstood by parties who came before him in building cases, viz., the question of payment into Court. The defendant who owed something less than the claim was generally advised to pay money into Court. If he paid into Court sufficient, he escaped all the costs of the trial, which the plaintiff then had to pay. The amount he paid in depended in many cases upon the advice of his surveyor. In his (Sir Francis) ten years' experience, the amount advised was an insufficient payment. Here the defendant had paid £1,100 on account and had paid into Court a further payment of £150, with his defence and counter-claim.

After careful consideration and perusal of the evidence, and bearing in mind all the defendant's complaints and particulars and the plaintiff's claim for extras, Sir Francis put the valuation at £1,500, of which £1,100 had been paid. There would be judgment for the plaintiff on the claim and counter-claim for £400. The plaintiff's costs must be taxed and the defendant must pay three-quarters of the amount allowed on taxation, but the costs for the preliminary issue and trial were to be excluded as already stated.

The £150 in Court was to be paid out to the plaintiff on account of the £400 mentioned.

COMPETITIONS OPEN

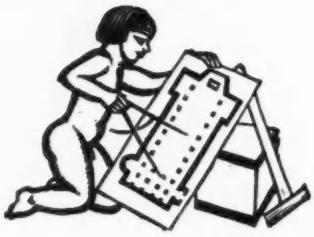
November 30.—The Guildford Cathedral Committee invite any architect, who has been engaged in the design of cathedrals or churches, to submit for examination drawings and other illustrations of his works; or a design for a cathedral. Not more than three sets of drawings may be submitted, packed in one large portfolio. Portfolios should be addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford, not later than November 30.

November 30.—The Burton-on-Trent Local Education Authority invite architects to submit competitive designs for a proposed new Council school to be erected on a site in Clarence Street. Applications for the conditions of the competition and site plan should have been made before September 8 to L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Latest date for submission of designs : November 30.

December 6.—The Bermondsey B.C. invites competitive designs for a proposed new medical clinic in Tower Bridge Road, S.E. The assessors will comprise representatives of the L.C.C., Ministry of Health and the Bermondsey B.C. Premiums : £250, £150 and £50 for first, second and third place, respectively. Applications for the conditions of the competition and site plan should be made to E. Goff Clark, Town Clerk, Town Hall, Spa Road, Bermondsey, S.E.16, by December 6. Deposit £2. Latest date for submission of designs : January 10, 1931.

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, has recently been issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolskv Square (Young Communist Square), and will contain a mas musical stage, and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes : 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics, Harrington House, 13 Kensington Palace Gardens, London, W.8.

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THE ARCHITECTS' JOURNAL

December 31.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: December 31, 1930.

February 1.—The Norwich Corporation invites architects practising in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Assessors: 1. Dr. Srkulj Stjepan, Burgomaster and Chairman of the Foundation, as president of the jury. 2. Henauer, W., architect, of Zurich (or his representative, Ch. Thevenaz, architect, of Lausanne), for the Swiss Engineers' Association of Germany. 3. Dr. Ing. Kreis Wilhelm, of Dresden, for the Engineers' Association of France. 4. Arch. Expert H.R., of Paris, for the Engineers' and Architects' Association of France. 5. Dr. Culumovic Pavao, Primarius, for the Medical Association of Zagreb. 6. Ing. Gabric Franjo, for the Yugoslavian Association of Engineers and Architects, Zagreb section. 7. Dr. Rasuhin Josip, deputy for the Directors of the Institute of Hygiene Foundation Hospital of Zagreb. 8. Prof. Dr. Prasek Emil, for the medical faculty of Zagreb. 9. Dr. Durst Franjo, for the medical faculty of Zagreb. 10. Arch. Heinzel Vjekoslav, Alderman of the City of Zagreb. Committee representative of the jury: Ing. Jurkovic Mato, Stadtbaurat in Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Programme and particulars of the competition will be sent on or after August 15, 1930, on application to the Stadtvorstand of Zagreb (Mr. Matica, secretary), Room No. 70, 2nd floor, on payment of 200 dinar. Latest date for submission of designs: January 15, 1931.

No date.—An international competition for the development of the uses of aluminium and its alloys, open to inventors of any nationality, is to be held annually by the International Aluminium Bureau. The competition will be divided into two sections. All proposals will be allocated to the appropriate section by an adjudicating committee comprised of five members. The prizes to be awarded are 25,000 French francs for the entries under Sections A (methods of working or using the metal) and B (manufacture of articles therefrom) respectively, and 50,000 French francs to the author of a suggestion which has exceptional interest or value under either section. Entries may be submitted between January 1 and April 1, 1931. Further particulars are obtainable from the British Aluminium Co., Ltd., Adelaide House, London, E.C.4.

THE ARCHITECTS' DIARY

WEDNESDAY, NOVEMBER 26

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Finance and House Committee. Intermediate Examination. Until November 27.

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of Members' Holiday Sketches. Until November 27. Exhibition of photographs of buildings visited on the A.A. Excursion to Sweden and Denmark. Until December 20.

ARCHITECTURE CLUB. Eighteenth Annual Dinner, to be held at the Savoy Hotel, Strand, W.C.2. Topic: "London of the Future." R. Holland-Martin will preside. 7.15 for 7.30 p.m. **7.15 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: The Romanesque Period." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. First of three public lectures on "Stockholm and Its Environs." By A. M. Wijk. (Lantern Illustrations.) **5.30 p.m.**

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 Conduit Street, W. "Conway Castle and Town: Its Creation, Early History and Present Condition." By Arthur E. Henderson, F.S.A., F.R.I.B.A. (Illustrated by slides and drawings). **8 p.m.**

SOANE MUSEUM, 13 Lincoln's Inn Fields, W.C.2. Art and House Collection. Open Thursdays and Fridays in November. 10.30 a.m. to 4 p.m. **10.30 a.m.**

EXHIBITION OF MODELS OF OLD LONDON. At the Golden Cross Hotel, Strand, W.C.2. The models are the work of John B. Thorpe. **2.30 p.m.**

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "The Powers and Duties of the Architect." By W. T. Creswell, HON. A.R.I.B.A. **6.30 p.m.**

DEMONSTRATION LECTURE, in aid of King Edward's Hospital Fund for London. At the Portland Hall Regent Street Polytechnic, W. "A Light Talk on Illumination." By T. E. Richie, A.M.I.E.E. Chairman: Sir Herbert Baker, K.C.I.E., A.R.A., F.R.I.B.A. Tickets, 2s. 6d. **5.30 p.m.**

THURSDAY, NOVEMBER 27

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Literature Standing Committee.

WEST YORKSHIRE SOCIETY OF ARCHITECTS, 62 Woodhouse Lane, Leeds. Students' Debate. "That 'Esquisse Design' in Schools of Architecture is not essential to the furtherance of good Architectural Design." Affirmative: P. J. N. Penlington. Negative: D. Steel. **7 p.m.**

INTERNATIONAL CONGRESS OF MODERN ARCHITECTURE. At Brussels. Until November 29. Subjects for discussion: "Rational Ground Layout for Minimum Size Dwellings" and "Horizontal Sliding Windows."

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "The Influence of the Architect on Modern Furnishing." By John Gloag. **7.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "The Structural Engineer's Relation to Building Construction and Transportation." By Alfred Bossom, F.R.I.B.A. **6.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Seventh of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) 5 p.m. Last of five public lectures on "Re-plannings of London, *c.* 1520–1920." By Miss E. Jeffries Davis. 5.30 p.m. **5 p.m.**

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. At the Showroom of W. T. Lamb and Sons, 43 Shoe Lane, E.C.4. "Bricks and Tiles." By E. Valser. **7 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "English Mediæval Sculpture." By Arthur Gardner. (Lantern Illustrations.) **5.30 p.m.**

READING AND DISTRICT BUILDING TRADES EMPLOYERS' ASSOCIATION. At Reading. "Some Problems of Cement and Reinforced Concrete." By Dr. R. E. Stradling. **6.30 p.m.**

SOUTH WALES INSTITUTE OF ARCHITECTS (CENTRAL BRANCH) AND INSTITUTE OF BUILDERS (SOUTH WALES BRANCH). At the Engineers' Institute, Park Place, Cardiff. "The Æsthetics of Engineering." By H. V. Lanchester, F.R.I.B.A. Chairman: T. Alwyn Lloyd, F.R.I.B.A. (Illustrated by lantern slides.) **7 p.m.**

FRIDAY, NOVEMBER 28

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, W.1. Fifth Annual Banquet to be held at the Stationers' Hall, City, E.C.

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

FRIDAY, NOVEMBER 28 (*continued*)

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. Paper on "Steelwork in Cinema Construction." By S. Willis. With an Introduction by William T. Benslyn, F.R.I.B.A. **6.30 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. South Midland Centre. Annual Dinner, to be held at the Grand Hotel, Birmingham.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. Scottish District Meeting, at the County Buildings, Paisley. "Sixth International Conference at Washington, D.C." **2 p.m.**

SATURDAY, NOVEMBER 29

Sunrise, 7.40 a.m. Sunset, 3.56 p.m.

L.C.C. SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Visit to the Works of Messrs. W. T. Lamb and Sons, Worcester Park. **2 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Students' Afternoon Visit to the reconstruction works in progress at the L.C.C. Kingsway Subway.

MONDAY, DECEMBER 1

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Cantor Lecture II. "Modern Domestic Scientific Appliances: Heating of Rooms." By Professor Charles R. Darling, F.I.C., F.INST.P. **8 p.m**

WEDNESDAY, DECEMBER 3

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Ordinary Meeting. "The Building of the Mansion House." By Sydney Perks, F.S.A., F.R.I.B.A., F.S.I. **8 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: The Gothic Period—The Cathedrals." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Second of three public lectures on "Stockholm and Its Environs." By A. M. Wijk. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. Sessional Meeting. "The Cost of Operating Industrial and Private Electric Generating Sets compared with Public Supply." By E. G. Phillips, M.I.E.E., A.M.I.MECH.E. **7 p.m.**

THURSDAY, DECEMBER 4

WEST YORKSHIRE SOCIETY OF ARCHITECTS. At the College of Art, Leeds. General Meeting. "Places of Entertainment." By W. Milburn (Jun.), B.SC., F.R.I.B.A., F.S.I. **7 p.m.**

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "Tudor Houses and Furniture." By C. H. B. Quennell, F.R.I.B.A. **7.30 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "Symbolism in Mediæval Art." By Dr. G. G. Coulton, F.B.A. **5.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Last of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) **5 p.m.**

SATURDAY, DECEMBER 6

Sunrise, 7.49 a.m. Sunset, 3.52 p.m.

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. Annual Dinner and Dance, to be held at the Grand Hotel, Aytoun Street, Manchester.

MONDAY, DECEMBER 8

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Cantor Lecture III. "Modern Domestic Scientific Appliances: Miscellaneous Devices." By Professor Charles R. Darling, F.I.C., F.INST.P. **8 p.m.**

TUESDAY, DECEMBER 9

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. At Milton Hall, Deansgate, Manchester. Paper by P. G. Fairhurst, M.A., A.R.I.B.A. **7 p.m.**

WEDNESDAY, DECEMBER 10

CHARTERED SURVEYORS' INSTITUTION. Annual Dinner of the Quantity Surveyor Members, to be held at the Connaught Rooms, Great Queen Street, W.C.2. **7.30 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: The Gothic Period—Rheims Cathedral." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Last of three public lectures on "Stockholm and Its Environs." By A. M. Wijk. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the College of Technology, Manchester. "Methods of Securing Masonry to Framed Buildings." By E. G. Warland, A.INST.S.E. **7 p.m.**

THURSDAY, DECEMBER 11

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS. At the University, Sheffield. "Maltese Architecture." By Professor L. P. Abercrombie, M.A., F.R.I.B.A. (Tea, 5.30 p.m.) **6.15 p.m.**

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "Old English Furniture and the Men Who Made It." By Ingleson C. Goodison. **7.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "The Æsthetic Side of Structural and Constructional Engineering." By Howard Robertson, F.R.I.B.A. South Wales and Monmouthshire Branch. Visit to works of Braithwaite & Co. (Engineers), Ltd., Newport. **6.30 p.m.**

OBITUARY

TAYLOR SCOTT : 1860–1930

BY the sudden death of Mr. Taylor Scott, F.R.I.B.A., of Carlisle, Cumberland has lost one of its oldest and best-known architects.

He was articled to the late Mr. Crosby Hetherington, of Carlisle, and thereafter had valuable experience in London, particularly in respect of light, air, and party-wall cases, but he was chiefly interested in Gothic work. He was a recipient, in 1882, of the R.I.B.A. Silver Medal and prize for measured drawings.

Mr. Crosby was elected an Associate of the R.I.B.A. in 1882, and commenced private practice in 1883.

He was one of the founders of the Cumberland branch of the Northern Architectural Association and took great interest in the work of the branch, serving as chairman, 1927–29, and acting continuously as a member of the Council of the Northern Architectural Association.

His work, as is so often the case with provincial architects, was of a most varied character, and included church buildings, schools, factories, business premises, mills and houses.

At one time he interested himself in the breeding of hunters, which he exhibited with success at shows held in different parts of the country. He was a life member of the Royal Agricultural Society.

[*We have received the following appreciation from Mr. C. McArthur Butler.*]

I am sorry to hear of the death of T. Taylor Scott. I was a junior assistant in his office forty years ago and I owe a great deal to his example, as it was there I learnt to work hard, and I never lost the habit.

I am glad to say that we kept up in personal friendship to the end, and on our too rare meetings in Carlisle and London he was always so pleased to see me and talk over matters of mutual interest.

Pardon my troubling you, but I would like to associate myself with any expression of appreciation and sympathy put forward by his professional brethren in the district.

C. MCARTHUR BUTLER,
Sec. R.I.B.A. Reg. Committee

THOMAS MALVERN : 1863–1930

The death has occurred, after a short illness, of Mr. Thomas Malvern, L.R.I.B.A., of Cheltenham. He was a son of the late Mr. Charles Malvern, and was educated privately. Mr. Malvern practised for more than thirty years as an architect in Cheltenham. He was architect to the Board of Guardians, for whom he carried out much work; and in recent years he had been engaged on several of the Cheltenham Corporation's big housing schemes, and responsible for quite a number of large houses and shops in the Cheltenham district. Mr. Malvern was a Fellow of the Gloucestershire Architectural Association and the Wessex Society of Artists.

A. E. LLOYD-OSWELL : 1850–1930

We regret to record the death of Mr. Arthur Edward Lloyd-Oswell, a well-known Shropshire architect and diocesan surveyor for the dioceses of Lichfield and Hereford.

Mr. Lloyd-Oswell, who was in his eighty-first year, was responsible for the building of several churches and public buildings in Shrewsbury and Shropshire.

THE BUILDINGS ILLUSTRATED

The New Crawford's (illustrated on pages 652-655 of the issue for October 29 last). We wish to express our very great appreciation of the courtesy extended to us by Messrs. Gilbert Wood & Co., Ltd., proprietors of *The Architect and Building News*, in permitting the reproduction of these views, all of which are their copyright.

Following are the names of the general contractors, specialists and sub-contractors for the buildings illustrated in this issue :

The Rink Cinema, Windmill Lane, Smethwick (pages 791–794). General contractors, McLaughlin and Harvey, Ltd. Sub-contractors : William Boyd, carving; J. H. Fletcher, solid plastering; E. Showell Trickett, glazing of turret lanterns; Braithwaite & Co.(Engineers), Ltd., steelwork ; Asbestos Cement Building Products, Ltd., roofing; Limmer and Trinidad Asphalt Co., Ltd., asphalt ; J. W. D. Pratt, Ltd., bricks; Concrete, Ltd., concrete; Garton and Thorne, Ltd., canopy and lantern; Troughton and Young, Ltd. (under the direction of E. C. C. Nichols), electrical work; W. T. Turner & Co., Ltd., seating; Bath and Portland Stone Firms, Ltd., Portland stone; D. French & Co., marble and masonry work; Bryan's Adamanta, Ltd., fibrous plasterwork and colour decoration ; Venetian Flooring Co., Ltd., terrazzo; A. E. Davis, ironmongery; Lewis's, Ltd., curtains; Wilks Bros. & Co., Ltd., handrails ; Clarke and Vigilant Sprinklers, Ltd., hydrants; R. S. Mace, Ltd., metal signs ; John Compton Organ Co., Ltd., organs; Carron Co., iron staircases; Crittall Manufacturing Co., Ltd., standard windows; James Gibbons, Ltd., special steel windows; Jensen & Co., organ lift; Illuminated Advertising Co., Ltd., Neon sign; Merchant Trading Co., Ltd., acousti-Celotex; Midland Heating and Ventilation Co., Ltd., heating; North British Rubber Co., Ltd., rubber flooring.

New Hairdressing Saloon, Austin Reed's, Regent Street, W. (pages 795–797). General contractors, Hall, Beddall & Co., Ltd. Sub-contractors : Rosser and Russell, Ltd., heating, hot water and ventilating; Tyler and Freeman, electrical work; Harcourts, Ltd., electrical fittings; Fenning & Co., Ltd.; marble; Vitrolite Construction Co. (Europe), Ltd., Vitrolite; Dexter Manufacturing Co., special hairdressing fittings and air-compressor plant; Harris and Shelden, Ltd., stainless doors, grilles, cupboards, wood panelling, tables, etc.; Osborne Garrett & Co., Ltd., saloon chairs; London Plenum Heating Co., vacuum plant; Bacterol Co., Ltd., Bacterol sterilizing plant; Korkoid Decorative Floors, Ltd., cork floors to changing rooms; Carter & Co., Ltd., basins, baths, etc.

House at Farnham Common, Bucks. (pages 798-800). General contractors, Wakelin and Rambling. Heating Engineer, J. T. Morton. Sub-contractors : C. E. Welstead, Ltd., metal casements and leaded lights; Roberts, Adlard & Co., and Stirling and Johnson, roofing contractors; F. Club and Son, weather vane and balcony railing.

The Bishop Chavasse Memorial Hall, Sedgemoor Road, Liverpool (page 806). General contractors, Joshua Henshaw and Sons. Sub-contractors : Ames and Finnis, roof tiling; E. F. Blakeley & Co., steelwork; Dodd and Oulton, sanitary equipment; Rowes Bros. & Co., Ltd., metal windows and leaded lights; Arthur Roberts, heating apparatus.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated, readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

33553. I. G. Farbenindustrie Akt.-Ges. Constructing acid-proof masonry. November 7.

33652. Smith, L. Building apparatus. November 8.

33725. Bleichert & Co. Akt.-Ges., A. Concrete building construction. November 8.

33726. Bleichert & Co. Akt.-Ges., A. Concrete building construction. November 8.

SPECIFICATION PUBLISHED

337525. Plummer, H. L., and Irwin, D. L. Construction of roofings, partitions, and the like.

The Board of Trade announce that in pursuance of section 7 of the Merchandise Marks Act, 1926, draft Orders in Council were laid before Parliament on November 3 requiring descriptions of wallboards to bear an indication of origin on sale or exposure for sale in the United Kingdom.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

Plans passed by the BEXLEY U.D.C.: Two houses, Menin Road, Welling, for Derrick Construction Co.; four houses, Broomfield Road, for Messrs. James and Norman; house, Danson Road, for Mr. A. D. Beaven; two houses, Westwood Lane, Welling, for Messrs. Strickland and Lyons; house, Danson Road, Bexley Heath, for Mr. B. Mitchell; four houses, Bethel Road, Welling, for Mr. C. H. Evans; house, Dartford Road, Bexley, for Mr. K. Dalgleish; four houses, Church Road, Bexley Heath, for Mr E. A. Davey; new road and sixteen houses off Honiton Road, Welling, for Mr. W. Norman; house, Upton Road, Bexley Heath, for Messrs. Connell and Seeley; four houses, Queen's Road, Welling, for Messrs. Peck and Flowers; ten shops, Upper Wickham Lane, Welling, for Mrs. Lewis; thirty-six bungalows, Pickford Lane, Long Lane and New Road, for Mr. D. C. Bowyer; club premises, Bank's Lane, Bexley Heath, for the Bexley Heath branch of the British Legion.

The General Purposes Committee, at a recent meeting of the CARSHALTON U.D.C., reported that they had considered the question of the layout of the Avenue Road improvement, especially regarding the land to be included in the scheme for re-housing, and had directed the surveyor to prepare a revised layout.

Plans have been approved for alterations at the "Victoria" public-house, 757 Woolwich Road, CHARLTON.

Plans have been submitted for alterations to the Palace, Broadway, CRICKLEWOOD, N.W.2.

Tenders are to be invited immediately for the rebuilding of the GREENWICH Hippodrome as a super-kinema. The architect is George Coles, F.R.I.B.A., and the scheme will cost about £30,000.

Plans have been approved for alterations at the "Ironfounders' Arms" public-house, Norman Road, and at the "Rose and Crown" public-house, Crooms Hill, GREENWICH.

At a special meeting of the HACKNEY B.C. it was resolved to apply in the present session of Parliament for a Bill *a*: To empower the Council to extend the Town Hall and, on lands to be acquired compulsorily for the purpose, to erect a town hall, council chamber, municipal offices, public halls and other buildings and premises for carrying on the business and the several undertakings of the Council; *b*: to empower the Council to execute street works on lands to be acquired compulsorily, including the widening of Reading Lane and the diversion of part of Hackney Grove; *c*: to empower the Council to borrow moneys for and in connection with the foregoing and other purposes of the intended Act; *d*: to amend the provisions relating to the granting of superannuation allowances to the officers and servants of the Council; and *e*: to provide for the transfer to and maintenance by the Council of the Hackney Old Church Tower as an ancient monument.

The London Education Committee is recommended to carry out extensions and improvements at the London School of Printing and Allied Trades, LAMBETH, at an estimated cost of £33,250.

The Imperial War Museum is to be removed from its present quarters at the Imperial Institute to the old buildings of the Royal Hospital of Bethlem, LAMBETH. The idea is to demolish the wings and to house the Museum in a portion of the central block.

The London Chamber of Commerce has asked the Ministry of Transport, the Port of London Authority, and the L.C.C. to co-operate in reconstructing the swing bridge over the MILLWALL Dock entrance.

Alterations are to be carried out to the "Amersham Arms" public-house, New Cross Road, NEW CROSS.

Plans have been submitted by a firm of architects for the erection of the British Studio, claimed to be the biggest in the world, within thirty-five minutes from Piccadilly Circus. The studio is planned to be built on a site of 160 acres of land, which has already been acquired and is being cleared. It is to cost £150,000.

Plans are being prepared by Cecil Masey, F.R.I.B.A., for a new theatre to be erected on the site of the PLUMSTEAD Cinema. Accommodation will be provided for 2,500 persons.

The WILLESDEN Education Committee is to provide accommodation for about 400 children on a site adjoining Braincroft Council school.

MIDLAND COUNTIES

The BAKEWELL (Derbyshire) R.D.C. has instructed the engineers to negotiate for land for a reservoir to augment the Stoke Flat water-supply scheme. The estimated cost is £18,000.

The DERBY Town Council is to be asked to agree to part of Markeaton Hall being converted into flats.

The DERBY Education Committee is to submit plans to the Board of Education for a new secondary school at Normanton. The school will accommodate 600 girls.

Plans passed by the NORTHAMPTON R.D.C.: Two houses, Weston Way, Weston Favell, for Mr. H. P. Cross; two houses, Park Way, Weston Favell, for Messrs. Stafford and Agutter; two houses, Weston Way, Weston Favell, for Mr. H. W. Richardson; house, Mill Lane, Kislingbury, for Messrs. S. G. Sale & Co.; house, Millway, Duston, for Mr. H. Stanford; house, Overstone Road, for Mrs. J. G. Shipman.

Notice has been given by the NOTTINGHAM Education Committee of the decision to build a new central school to accommodate 520 girls, on the Rosehill Farm site.

EASTERN COUNTIES

At a recent parish meeting at BLACK NOTLEY, it was decided to ask the Rural Council to provide twenty-five houses in the parish.

The SPALDING U.D.C. has sold four acres of land off the West Marsh Road, on the outskirts of the town, for the purpose of a canning factory, which is to be erected by the Wisbech Produce Canners, Ltd.

NORTHERN COUNTIES

At a meeting of the BRADFORD Street Improvement and Buildings Committee a number of proposals to purchase land for the making of the new inner ring road were approved. About ninety plans for new buildings contained instances of proposed extensions to mills.

The Marquis of Crewe, on learning that the CHESHIRE County Council is considering the provision of central buildings and offices for all the officials of the county, at an estimated cost of £160,000, has intimated his willingness to present Crewe Hall for the purpose. The value of the gift is estimated at over £250,000.

The COLWYN BAY Council is to consider the purchase of Bryn Euryn Hill, a quarry, twenty acres of woodland, and the ruins of a mediæval palace, for £5,000.

The Ministry of Labour has prepared plans for a suite of offices to be erected at CREWE. A site has been purchased from the L.M.S. at a cost of £3,000, and the building will involve over £8,000.

A Bill for the construction of a new dock and other extensive improvements at FLEETWOOD is to be promoted in the present Parliamentary session by the L. M. and S. Railway Company. The plans represent gigantic extensions to the Lancashire port which will involve an expenditure of approximately £750,000.

Tenders are invited for the erection of the superstructure of the new Langham Theatre to be built in Hessle Road, HULL, for Picture Playhouses, Ltd. The theatre will accommodate 2,697 persons.

The Dearne Valley Water Board has decided to construct, at Roebuck Hill, JUMP, a new service reservoir, with a holding capacity of 1,000,000 gallons, subject to the approval of the Ministry of Health. The scheme is estimated to cost £7,732.

Included in the building programme of the LANCASHIRE Higher Education Sub-committee for next year is a new training college at Ormskirk, extensions to Eccles Secondary School, Farnworth Grammar School, Radcliffe Technical School. Plans and estimates have also been approved for the following new senior elementary schools at: Westhoughton, £37,045; Little Lever, £13,010; and Ormskirk, £30,053.

The MYTHOLMROYD U.D.C. has rejected a proposal that they should oppose the building of a £30,000 new middle school in that district.

The SOUTHPORT T.C. has approved schemes for the remodelling of the North Marine Gardens and the building of a floral hall there, at an estimated cost of £20,000, and for an ornamental bridge over the Marine Lake leading to Princes Park, also at an estimated cost of £20,000.

The WELLINGTON R.D.C. has decided to erect fifty additional houses in various parts of the district. Thirty houses are to be erected at Hadley, at a cost of £10,470; eight houses at Rodington, at a cost of £3,032; four at Longdon, at £1,500; four at High Ercall, at £1,506; and a similar number at Sherlowe, at £1,500.

A new factory is to be erected at WEST HARTLEPOOL for the manufacture of barium products.

SCOTLAND

A large site has been acquired in High Street, FORT WILLIAM, for the erection of a super-talkie theatre.

Plans for the erection of four new schools for GLASGOW, estimated to cost together almost a quarter of a million pounds, have been passed by the Dean of Guild Court. The situation of the four schools and their estimated cost is as follows: Buckley Street, Parkhouse, Possill, £23,000; Balmore Road, Lambhill, £66,000; Pollokshaws Road, £80,000; Knightswood Road, £60,000. Other plans passed include: Cinema, Warriston Street and Cumbernauld Road, for Mr. William H. Martin; cinema, Cumbernauld Road, for Mr. George V. Scott; seventy-two houses of two apartments and seventy-eight houses of three apartments, Whitelaw Street scheme; 138 houses of three apartments; forty-four houses of four apartments, and two houses of five apartments, Knightswood; eight houses of four apartments, Moss Road, Drumoyne; alterations, Knightswood Hospital.

The KIRKINTILLOCH T.C. has passed plans for the erection of forty-four houses on the Woodhead estate, recently purchased by them. Of these, twenty-eight are to be of three apartments and sixteen of four apartments. The cost is estimated at £18,800.

The MIDLOTHIAN County Council has agreed to spend approximately £11,000 on the widening of the Telford Bridge, on the main road to Peebles.

A meeting to arouse local interest in the proposed Forth Road bridge was held in Bo'ness Town Hall recently. Councillor A. Gilzean said that he believed the £2,000,000 spent on the new Edinburgh-Glasgow road would be wasted money unless the proposed road bridge across the Forth at SOUTH QUEENSFERRY became a reality. At the conclusion a resolution in favour of the proposed new bridge was passed.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	•1 7	1 2½
C	Aldeburgh	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	•1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn	N.W. Counties	1 7	1 2½
A	Blackpool	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7	1 2½
B^1	Chatham ..	S. Counties	1 4½	1 0½
B^1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EAST-BOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	•1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A	Gloucester	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham	Mid. Counties	1 5½	1 1
A_1	Gravesend	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	•1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kiddermin-ster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 4½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	•1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12 miles radius)		1 8½	1 3½
	Do. (12-15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Lough-borough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLES-FIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middles-brough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	•1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	•1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	•1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENS-FERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKE-FIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Welling-borough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolver-hampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

• In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given

The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour ;* NAVVY, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day :

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* BRICKLAYER, 1s. 8½d. *per hour ;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see " Excavator " above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see " Excavator " above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ⅜ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour ;* DO. *fixer,* 1s. 9½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone :			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see " Excavator," etc., above.			
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0
Add to the foregoing prices, if in York stone 35 per cent.			
DO. Mansfield, 12½ per cent.			
Deduct for Bath, 33⅓ per cent.			
DO. for Chilmark, 5 per cent.			
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour ;* TILER, 1s. 8½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200 :

	Med. Grey	*Med. Green*
Portmadoc Ladies		£14 0 0
Countess		23 0 0
Duchess		32 10 0
Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms, per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see " Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal :

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	*Med. Green*
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms	6	7 0
Grey-green do.	5	9 0
Green peggies, 12 in. to 8 in. long	4	13 6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18s. 0d. per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See " Sundries " for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour ;* JOINER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds) :

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[continued overleaf

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb.*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	1	8
DO. ⅝ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1¼ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ⅝ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ⅜ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. *26 oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1

Small sizes slightly less (under 3 ft. sup.).

Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.

LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0

Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ½ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ¼ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



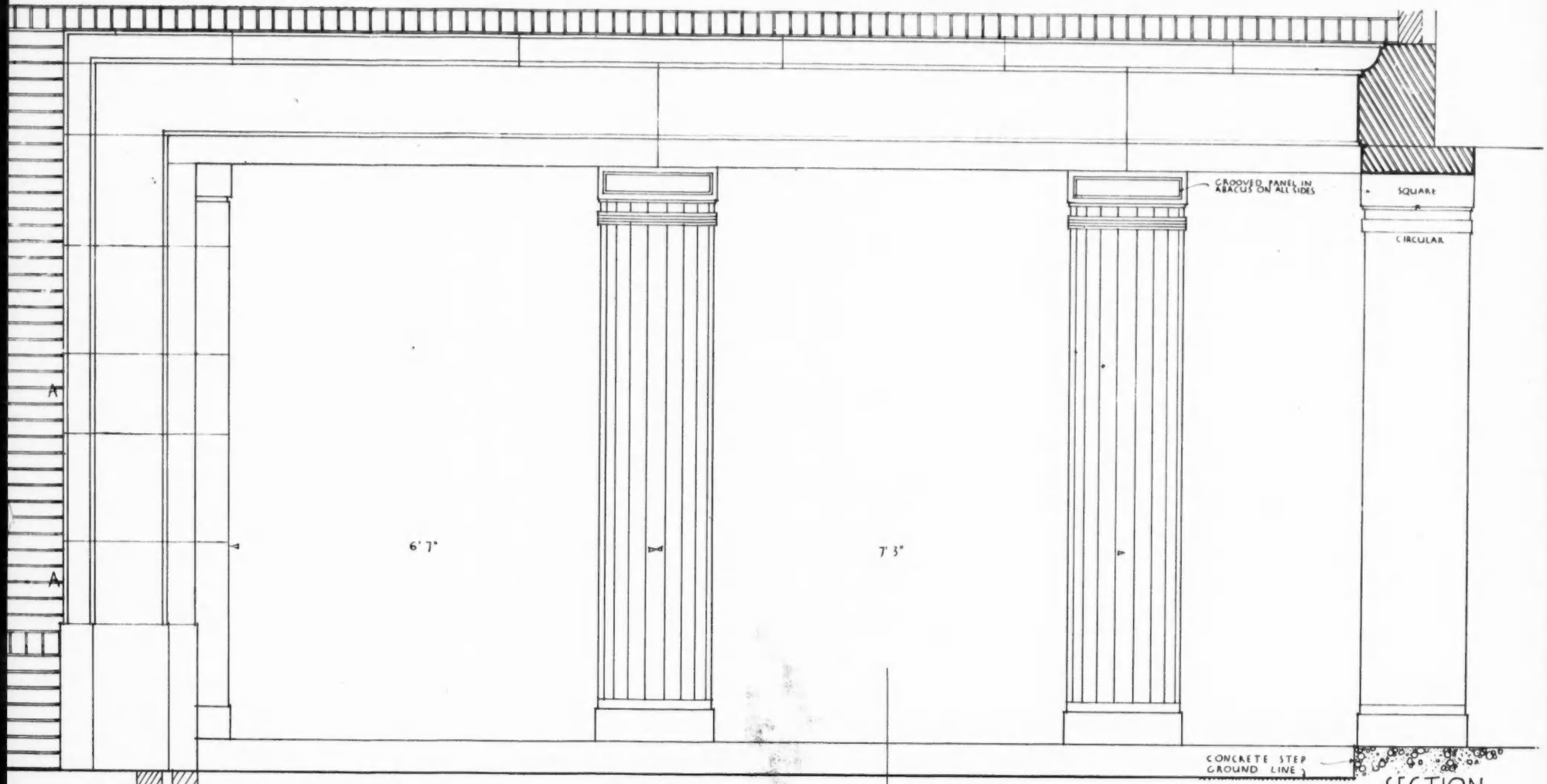
ENTRANCE TO FESTIVAL HALL AT ALDERLEY EDGE
Designed by HALLIDAY & AGATE

A STRONG and clean treatment of a stone-framed series of openings in a brick façade is shown in the photograph above.

It will be noticed from the scale drawings reproduced overleaf that certain liberties have been taken with the Orders as generally understood, i.e. the columns have been given no entasis, and a deep square abacus, with sunk and channelled panels on all four sides, takes the place of the usual capital. The bases, too, have been shorn of all projecting members, and are inflected at their junction with the ground merely by a cessation of the fluting and with one small offset moulding. The result, though unorthodox, has the merit of directness, and the columns well express their function.

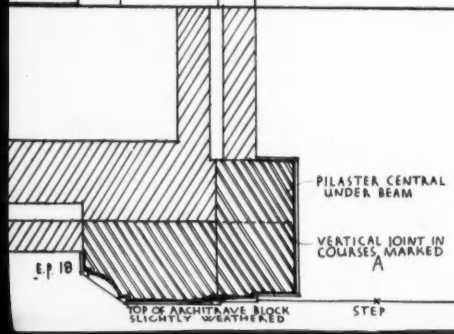
The jointing of the surround should also be studied: it will be seen that at the junctions of the lintols over the columns a short length of lintol has been used, thus reducing the actual spans, but at the same time showing two joints over the columns instead of the customary one. For other views of the hall see pages 831–6.

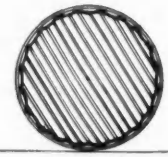
The drawings may be read with an architect's scale (6″ = 1 ft.).



ELEVATION

SECTION



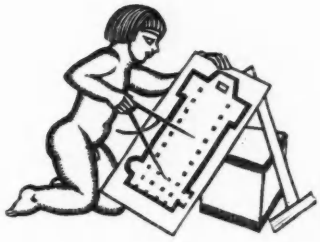


PLAN

FESTIVAL HALL · ALDERLEY EDGE
HALF INCH DETAILS OF STONE PORCH

HALLIDAY & AGATE
ARCHITECTS

THE ARCHITECTS' JOURNAL



WEDNESDAY, DECEMBER 3, 1930

NEW BUILDING LAWS

" That machinery be created for giving national application to new methods and materials of construction."

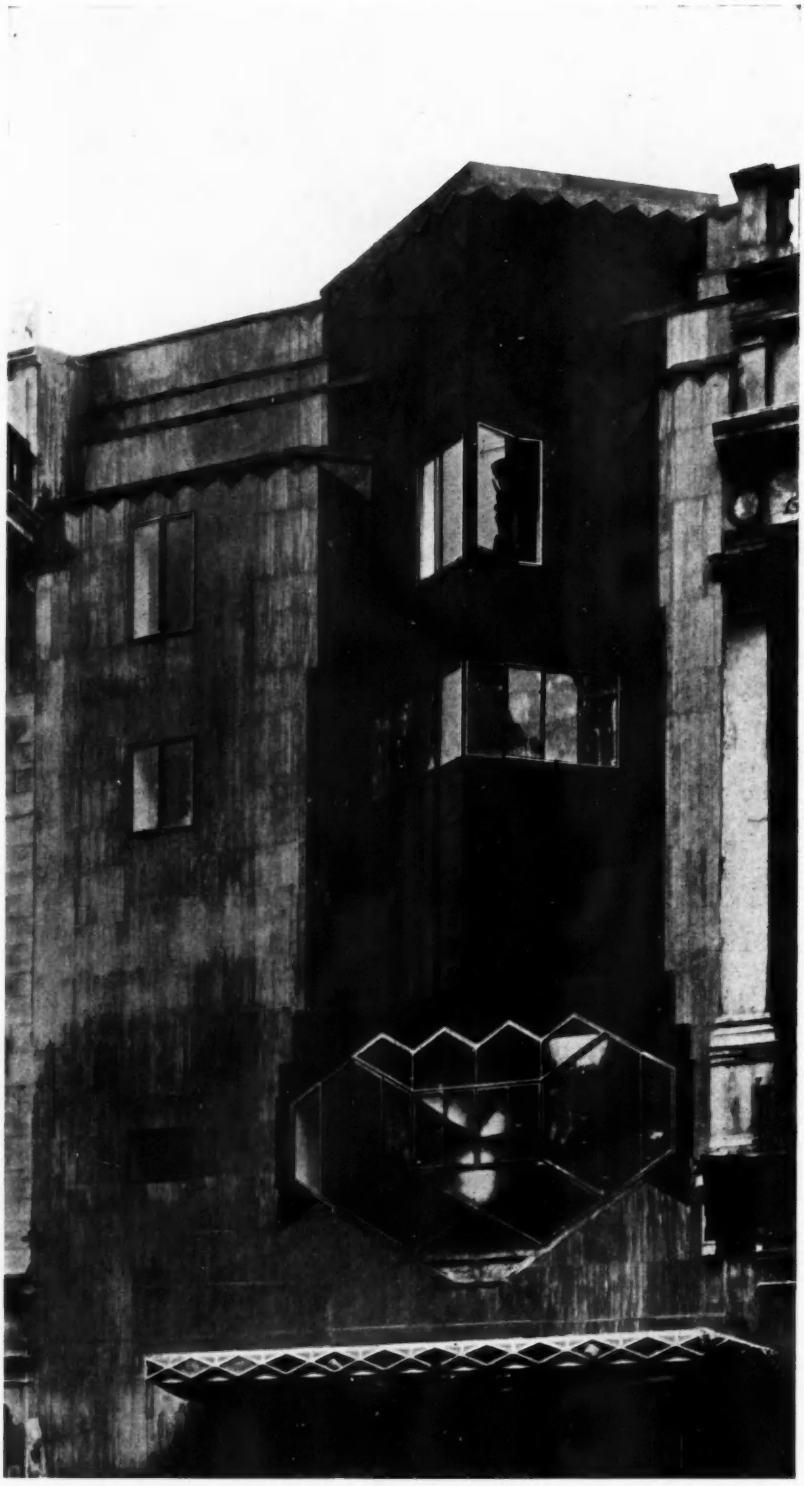
—RECOMMENDATION BY LORD EBURY'S COMMITTEE.

THE movement for the revision of the building laws in this country is at last taking definite shape. An all-party meeting of M.P.'s was held in July last under the chairmanship of Sir Robert Horne, and as a result of this meeting a representative committee was received by the Minister of Health. The deputation urged that " the control of building has become a serious menace to enterprise and employment, not only in the building trades, but in the vast number of ancillary trades whose welfare is vitally dependent upon the building industry." We now have the views of the deputation available in print, and to-morrow—Thursday—a technical and economic Advisory Council is to be inaugurated at the R.I.B.A. Architects may take heart, for things are indeed moving.

What is it the committee is really trying to achieve? First of all, of course, it is out to simplify and modernize the whole intricate system of town-planning schemes, national Acts, local Acts, bylaws, regulations and the rest. The system works, like all our English systems that appear to have grown rather than to have been made, but it works, at this present moment, with a slowness, awkwardness and uncertainty of motion that have become so irksome as to be wellnigh intolerable. To ease the working of this machine is, we say, the committee's first aim. But the plight of Britain's trade to-day is such as to compel everyone striving after a private object to look about and take a wider national view also : to ask himself, that is, what benefit the country in general may gain from the success of his endeavour. In this case we are assured on every side that a genuine victory on the part of architects and builders would confer enormous advantages upon the nation's trade. In a letter to *The Times* the Director of the Federation of British Industries lays great stress on the possibilities of standardization in expanding " a live, world-wide demand for British products." The great enemy of a sane standardization—a reform which has been urged time and again in the pages of this JOURNAL—is, we learn, " the diversity of requirements from town to town and from borough to borough in the United Kingdom." Against the maintenance of this diversity Lord Ebury's Committee has resolutely set its face, and the Advisory Council will deserve well of the country if it can bring it down within the limits of reason and necessity.

Architecturally, the evil most in need of reform may be summed up in the one word, *London*. Outside the London area one can point to this or to that measure and say that it is out of date; in London everything is out of date. The dual control by L.C.C. and local and district officials is a complication whose effects can be incredibly hampering. The legislative enactments under which London building is controlled make it impossible to keep in touch with modern structural methods without Parliamentary sanction at every point. The Committee drily states, without comment, that " no L.C.C. housing scheme could have been carried out under the existing Building Act." Could any bald statement of fact be more damning ? The slack and objectionable system of " discretionary powers " under Acts and bylaws to which " waivers " may (or may not) be applied is seen at its worst in London, though this is, indeed, a matter for national reform. The result of this system as it now stands is that no one knows until a decision has been given what is and what is not permissible. Building under such conditions becomes a gamble against unknown odds. No wonder the heads of commercial firms are reluctant to embark on building and rebuilding schemes. Business building is now, as this report reminds us, a far smaller fraction of the national total than it was before the war, the percentages being 6·5 and 10 respectively. It is safe to

[*Continued on page 825.*



A V-FRONT IN THE STRAND

The upper portion of the main façade of the reconstructed Adelphi Theatre. It is in black and grey marble with cappings of copper, and a metal canopy with a black and white glass front. The new theatre is designed by E. Schaufelberg, and is announced to open tonight with "Ever Green," a musical play staged by Charles B. Cochran. Further views appear on pages 828–830.

prophesy that this figure will be substantially increased when the Advisory Council has got really busy.

There are two things we very much miss in this report; we hope the Council will not omit to consider them. The first is what we may briefly call the æsthetic consequences of building laws. Building Acts and bylaws, as this JOURNAL has often had occasion to point out, may interfere with sound design in more ways than is generally realized. Mr. Maurice Webb, the R.I.B.A. representative, is the only architect among the builders and business men who make up the bulk of Lord Ebury's Committee, and could hardly be expected to establish the full claims of design at the present stage. The Advisory Council, however, must do better. The other omission, which was also conspicuous in Mr. Shelley's recent paper on the subject at the R.I.B.A., is that of any reference to the Home Office, a national building authority, whose work has been quietly going on for a much longer time than that of most other authorities. We are assured by Mr. Shelley that a centralization of authority must inevitably mean more restrictions. To discuss national building legislation without reference to the Home Office is about as useful as to discuss local legislation without reference to the Ministry of Health. A survey of the work of this department has been prepared for this JOURNAL, where it will shortly appear. A careful study of the working of the Factory Acts is essential to any discussion on the public control of building.

NEWS & TOPICS

THE LONDON WE DREAM OF—

THE four speakers at the Architecture Club's eighteenth dinner last Wednesday did nothing to dissipate the profound pessimism which the subject of London's civic future must inevitably inspire. Even the dexterity with which the poets—for that is what literary gents like to call themselves after dining well—scratched each other's backs only momentarily relieved the all-pervading gloom. The architects caught it pretty hot. Mr. Priestley began by disdainfully assuring them that probably no man living had missed more "architectural sights" than himself. Never had he been wittingly guilty of such a criminal waste of time as to contemplate a west front. In a brilliant pastiche of Mr. Wells's previsionary style, he introduced us to a London in which the business and shopping areas were roofed over with glass and exclusively reserved for pedestrians. The housing problem had been solved by the simple expedient of blowing up the eastern and north-eastern districts, and transforming these brick rabbit-warrens into satellite towns of Corbusier tower-tenements with all the usual conveniences and garden-suburb amenities laid on—or rather up.

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Mr. Squire, the other good companion, dismissed London as hopeless, preferring the C.P.R.E.'s campaign for rescuing what is left of the countryside to any League for Saving London from Itself. Were not two deplorable new buildings put up there for one that was seemly (an unduly clement judgment), and three good old buildings torn down for one that left no regrets? One thing, and one thing only, he knew about the architecture of our London of the Future: "My God, it *will* be bad!" Why it should, or how it could, be worse than that of London of the Present, he gave no inkling. Shaking a head prematurely silvering with forebodings, he prayed earnestly for a new Plague to decimate—or was it exterminate?—the besotted, supine and shiftless citizens of this increasingly mean city; followed by a second Fire of London to incinerate their degraded homes and monuments.

—AND THE LONDON WE DESERVE—

It was the commercialism of the City, Alderman Culpin insisted dolorously, which killed Wren's great plan for reshaping London as a coherent entity of parts standing in proper relation to the whole. The infinitely more complacent Micawberism of the L.C.C. had just refused to authorize a ten years' comprehensive programme of correlated improvements and replanning on the pietistic pretext that it was impossible to foresee the inscrutable needs of the future. The unforeseen is only unforeseen because, throughout the 2,000 square miles of Greater London, in which 280 different local authorities jealously tend their several parish pumps with complete indifference for their neighbours' needs, there is neither a co-ordinating policy, a settled plan of development, nor a schedule for reconstruction. The greatest city in the world is mistress neither in her own house, nor of her own destiny. He pleaded for "the big view, the big area, the big result," and the big stick of some Mussolini. It was positively humiliating to hear a lifelong Liberal unblushingly avow the impotence of democracy to clear up the mess.

—AND GET

From Captain Swinton came the wholesome, and very necessary, reminder that London traffic is infinitely more important than London architecture—a statement he might have elucidated by explaining that the sorry medley of the latter was the faithful reflection of the chaos of the former. Of seventy plans for the new Charing Cross Bridge examined by him, sixty could be summarily dismissed as "rotten." The only ray of hope was the imminent perfection of the helicopter type of aeroplane. And so to bed in much dread of gunpowder plots, and the coming great pestilence and conflagration, whereof both my priest and my squire do warn me; though Beadle Bumble bids me sleep sound and take no heed, saying "everything be right and well in the ordering of this most excellent city."

POSTERS AND NIGHT SIGNS

Some of Mr. Leathart's shrewdest blows, at the R.I.B.A. on Monday, were aimed at the outrageous abuse of perfectly good architecture by way of posters, signs and all the horrid American insignia of advertising on the part of certain cinema managements. It is not enough for the architect to incorporate in his design spaces for 6-sheet posters: the entire façade must disappear behind the bulwarks of big business. The searing neon light, too, is capable, every night, of new frightfulness. So that it is not without uneasiness that I read of fresh advances in electrical practice.



Plaster cast of a chimpanzee, by Henri Gaudier, one of the exhibits by four contemporary sculptors, at the Zwemmer Gallery. It is approximately 2 ft. 6 ins. wide and 2 ft. high.

There are other gases than neon. Hot and cold cathode tubes, charged with various vapours, can, as we remember from our dabblings in the science laboratory at school, be made to emit lights of extraordinary monochromatic and polychromatic intensity, some few captivating, a good many very much the reverse. Such effects are likely to be exploited commercially in the near future. "Not much imagination is needed," says *The Electrician*, "to visualize a world of the future in which the fall of darkness will open the doors of a fairyland of luminous colour." But when it voices, editorially, in the very same sentence, the hope "that it will not be allowed to become a nightmare," while uttering "Amen to that," I feel that things are likely to be worse before they are better.

THE ARCHITECT'S INFLUENCE ON FURNITURE DESIGN

The influence of the architect on modern furniture design was the subject of a lecture by Mr. John Gloag at the Geffrye Museum last Thursday evening. Incidentally, this was the only lecture of the series of six given as the first part of the winter session at this Museum that dealt with a contemporary problem; all the other lectures are concerned either with the antiquarian aspects of furnishing or with tradition in furniture design. Mr. Gloag's suggestion that the architect is returning gradually to that position of complete dominance in design that it held in the eighteenth century may or may not have caused his hearers to speculate on the future of the furniture trade under such circumstances. He made it clear that the architect approaches the solution of furnishing problems with a directness and a simplicity that the commercial furniture designer, especially if he is an emotional traditionalist, somehow manages to avoid.

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The architect is using new materials for furniture making: he is encouraging the use of chromium-plated steel, of glass, of rubber, of plywood, and the results are efficient, although, as Mr. Gloag pointed out: "they are as yet a little inhuman, owing, perhaps, to an uncritical preoccupation with M. le Corbusier's edict that 'the house is a machine for living in.'" The slides that accompanied the lecture at least indicated the beginnings of a humanizing movement in the making of modern steel furniture, which, so far as chairs are concerned, is tending to become a metallic clasp for vividly decorative and extremely luxurious upholstery.

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It is significant that a new point of view about furniture design should be imposed upon the furniture industry from without, and that the intelligent employment of new and promising materials should develop under the patronage and direct inspiration of architectural designers. The furniture industry as a whole has only stirred from its traditional slumbers once since the days when "new art" was discredited, and that fit of muddled wakefulness was unpleasantly employed in importing a spurious "modernism" after the noise of the 1925 Paris Exhibition had convinced the sluggard that something was going on somewhere, somehow.

SCULPTURES BY GAUDIER

Most of the drawings and sculpture by Henri Gaudier, the sculptor who, at the age of twenty-four, was killed in France in 1915, thus dealing a severe blow to his profession, form the major part of the exhibition of some work of four contemporary sculptors, now on view at the Zwemmer Gallery. It was a happy thought of Mr. Zwemmer's, says Mr. Wilenski in a foreword to the exhibition catalogue, to contrast the calligraphic drawings by Gaudier with the brilliant romantic drawings by Jacob Epstein, now at the height of his astonishing powers and supremely master of the vision of sentient life; to contrast Epstein's drawings with those of Frank Dobson, who is concerned with the plastic interplay of subtly defined masses, and to complete the exhibition with examples of the monumental vision of Henry Moore. The forty-one drawings comprise studies of figures and animals. The six pieces of sculpture—four by Gaudier and two by Dobson—are of high standard. I admired chiefly Dobson's bronze head of a girl, not hitherto exhibited, and a plaster cast of a chimpanzee by Gaudier; a photograph of the latter is reproduced on this page.

RE-HOUSING IN ST. PANCRAS

There was opened last week a block of forty flats for poor working people in an overcrowded area in Somers Town (known as the Sidney Street Estate), being the first part of a housing scheme designed by Mr. Ian Hamilton, A.R.I.B.A., for the St. Pancras House Improvement Society. They have done much already to clear away the slums, and this is the latest of their activities. An overcrowded area was bought, and street by street the dilapidated houses are being demolished and the people re-housed in well-planned and well-decorated homes, containing a sufficient number of rooms, and fitted with the very latest conveniences, at an extraordinarily small rental. The scheme itself is finely conceived and designed, and it has a pleasantly human feeling about it, which is of special value in this type of building. When completed, it will consist of a series of five-story blocks, so disposed on the site as to get the maximum of light, air and sun, and having a central garden space which will be planted and kept in order. There will be a roof nursery-school.

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The Society is re-housing here only tenants who belong to the site already, and will ask such rents as poor families can afford in general, a feat which even many local authorities have not been able to achieve. Following the example of an L.C.C. scheme near by, the flats have been made all-electric, including cooking stoves, coppers, kettles, irons, fires, etc., at a very small cost for upkeep

and use. The people themselves are keenly appreciative as their own new homes rise up before their eyes, as fast as funds allow. This is certainly an object-lesson in housing.

A MAYFAIR MIGRATION

After Mudie's, Batsford's ! The "*Drang nach Westen*" of business continues, and Holborn is the poorer for two landmarks which were oases to the book-lover in the featureless prolongation of Oxford Street's mile of millinery. The associations of this part of London with architectural bookselling reach as far back as 1611, in which year Sir Robert Peake's black-letter translation of Serlio's *Architecture*—the second illustrated book on the subject to be printed in English—issued from a Holborn press. The next notable names are those of Piers and Partner, and Henry Webley, booksellers at "The Bible and Crown." They were succeeded by Isaac Taylor about 1767 at "The Rose and Crown," opposite the Great Turnstile, near Chancery Lane. In 1786 Isaac was joined by his son Josiah, and the business was transferred first to 56, and then to 59, on the "high" of old Holborn Hill—which was steep enough not to belie its name—at which address it remained till 1825.

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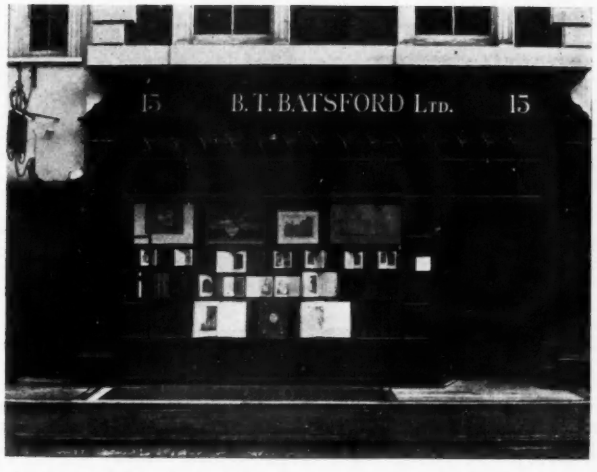
The premises and stock of this interesting and not undistinguished family was taken over by Priestley and Weale, when the Taylors moved to Wellington Street. In 1843 the first Batsford, Bradley Thomas of that name, who had been apprenticed in 1837 to "the art and mystery of bookselling" with Mr. Bickers, of the firm so long established in Leicester Square, set up as a second-hand bookseller in High Street, Bloomsbury. He soon moved to 52 High Holborn, whence his business was later transferred to the shop at No. 94, the book-crowded window and dusty, folio-filled shelves of which have been familiar to generations of architects and draughtsmen. Bradley Thomas Batsford, who died in 1904, was followed by his sons Bradley and Herbert. The firm of B. T. Batsford, Ltd., which will celebrate its centenary thirteen years hence, has for some years past been carried on as a private company under the management of Mr. Harry Batsford, HON. A.R.I.B.A., the great-nephew of its founder.

Batsford's new branch at 15 North Audley Street, which was inaugurated on Monday, occupies a Georgian house, built about 1790, that still retains some very prepossessing Regency details. The necessary transformation of what was a beauty parlour, decorated with fulsome Edwardian festoons, has been skilfully carried out by Professor A. E. Richardson so as to perpetuate something of the peculiar, almost Dickensian, atmosphere of the old premises in Holborn. The outside window, painted green, has interlacing ogival panes. On the ground floor are three very spacious showrooms panelled to the ceiling with old mahogany bookshelves as in a private library. In the second of these hangs Zoffany's fine Blairadam portrait of Robert Adam, the only authentic painting of him known, with James Gibbs by Andrea Soldi on its left. Upstairs is a small, but well-lit, gallery, intended for exhibitions; with a couple of editorial offices adjoining. The Mayfair Batsford's certainly supplies a long-felt London want: an art bookshop of the type which exists in all large foreign cities where architects, antiquarians, students, connoisseurs, and mere inquisitive bibliophiles can find everything they could possibly want, from curiously tooled folios of Stowe's *Survey* to the latest instalment of the functionalist creed according to St. Corbusier.

"ET TU, E. V.?"

This is what I read, put into the mouth of Richard, in *Down the Sky*, by E. V. Lucas: "Why don't women more often become architects? The designing of a home is surely their natural work. They know better than any man where the kitchen ought to be and the pantry, and how to save labour. They would enjoy ordering the builders about and wrangling with their clients over details and expense. It's amazing to me that women have let male architects do the house-planning all these centuries, more especially as houses are constructed far more for women to live in than men. Men go out, often slamming the door; women stay in. To design the houses they are to spend so much time in would be an ideal occupation for them. At any rate, they couldn't design them worse than men do."

ASTRAGAL





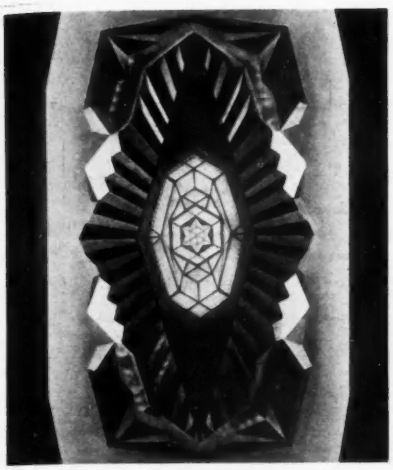
Another bookshop for the West End: exterior and interior views of the premises reconstructed for Messrs. B. T. Batsford, Ltd., in North Audley Street, W. Professor A. E. Richardson designed the new shopfront, and his renderings of the rooms perpetuate, as Astragal finds, the almost Dickensian atmosphere of the firm's old premises in High Holborn, as may be judged from this aspect of three on the ground floor, which form a suite.

TRIGONOMETRY IN THE THEATRE:

THE ADELPHI, LONDON.

DESIGNED BY E. SCHAUFELBERG

In the auditorium, looking from the dress circle. Seating accommodation is for 1,500 persons. The lower half of the walls, and the fronts of the dress and upper circles, are lined with plain sheets of sycamore of amber colour, polished. The general colour scheme is green and gold, with a drop curtain, and hangings to the boxes and exits in red picked out in gold and green. Seats are of rainbow colour. The carpet is fawn. Near views of the ceiling lights appear on the facing page. At the sides of the boxes are amber lights; above them are special boxes containing spotting arcs. The balustrade of the orchestra pit, ash trays, etc., are chromium plated.



The panel in the ceiling of the auditorium has a silver and glass centrepiece designed to give different lighting effects, and is decorated in colours from green to gold.

TRIGONOMETRY IN THE THEATRE:

The Adelphi, London

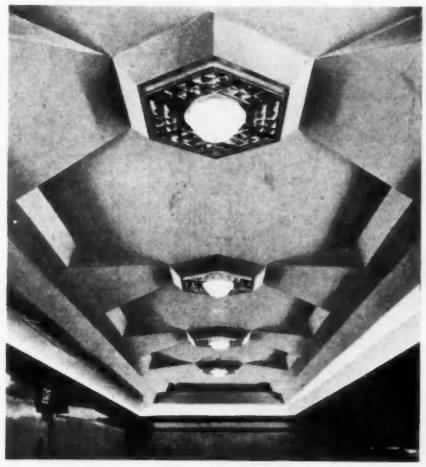
DESIGNED BY ERNEST SCHAUFELBERG

THE reconstructed Adelphi Theatre is designed with a complete absence of curves. Externally and internally the entire conception is carried out in straight lines and angles, the angle of 32 degrees being used as the master note.

It is built for Musical Plays, Ltd., and is intended for use as a legitimate theatre, although a projection room has been incorporated in the plans. In the stalls and two circles seating is provided for 1,500 persons. The proscenium opening is practically square, and has a width of 38 ft. and a stage depth of 40 ft.

The stage embodies many new innovations, not only in the lighting but in the method of handling the scenery. An electrically-driven revolving stage has been installed, so that changes of scenes can be made on the back half whilst the front scene is being played. This has necessitated the provision of a cyclorama cloth and the absence of sky borders, somewhat on the system now in vogue on the Continent.

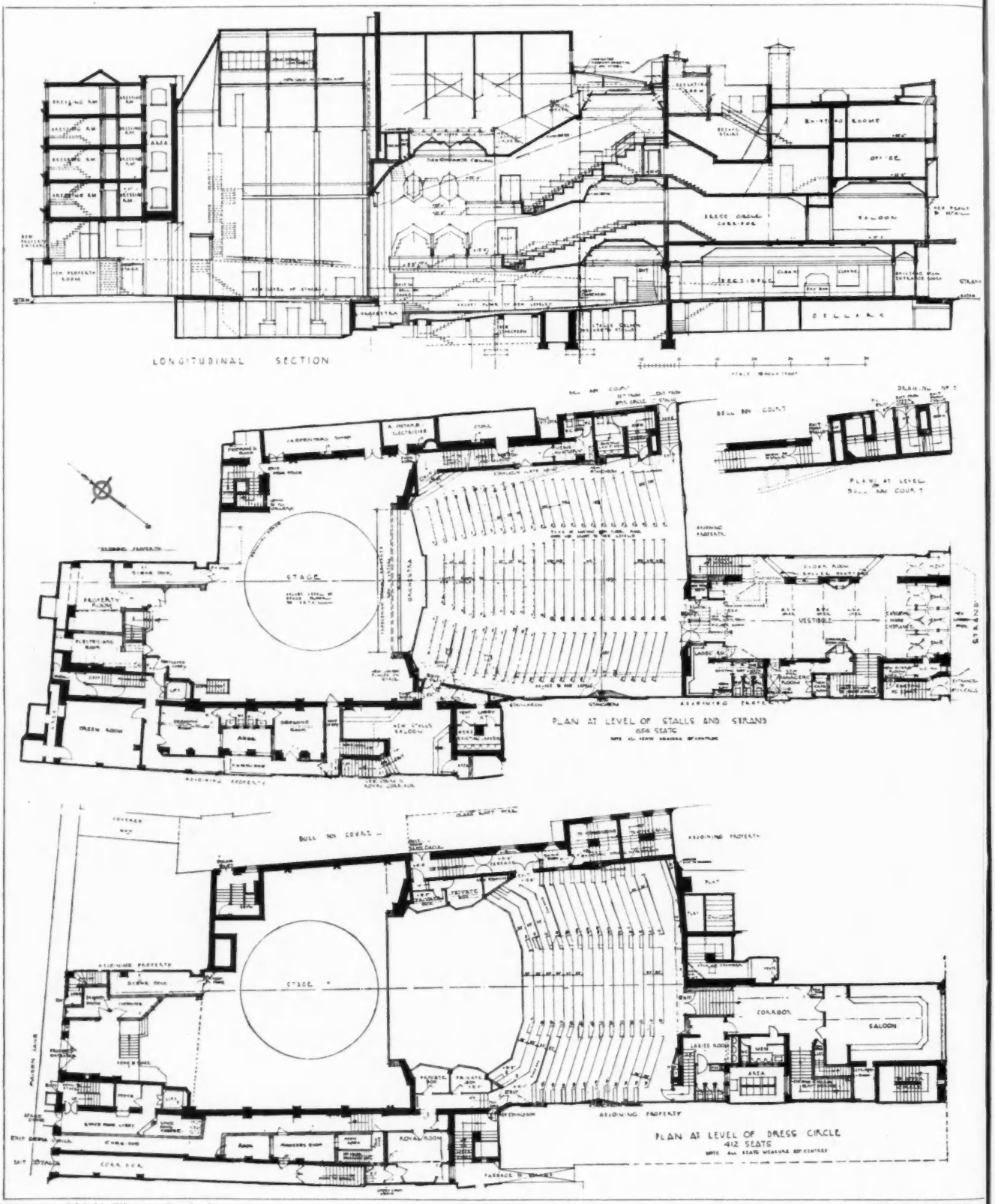
Considerable public attention was riveted on the work during its final stages owing to the big hustle performed by the builders to keep to the schedule. It is understood that the theatre was to open on November 24, and that the owners were to pay Mr. Cochran a penalty of £450 for every day they were late in handing over the theatre.



The ceiling of the dress circle is also boldly decorated in green and gold. It extends the full width of the theatre, over the gangway, behind the back row of seats.



The entrance vestibule. On the left is seen the staircase leading up to the dress circle, and one of the two box offices. On the extreme right are the doors to the stalls. The walls are lined with black marble. Both box offices have chromium-plated grilles and red curtains. The ceiling is treated in colours of gold, green amber, black and red. The interior doors generally are red, with black surrounds and chromium-plated handles.



The new Adelphi Theatre, London.] [*By E. Schaufelberg.*

The architect's drawings of the longitudinal section and of plans. The stalls and dress circle are entered from the Strand through three pairs of swing doors, to the left of which a separate and independent entrance is planned to the upper circle. A revolving stage is provided.

A HALL WITH ADJUSTABLE FLOOR

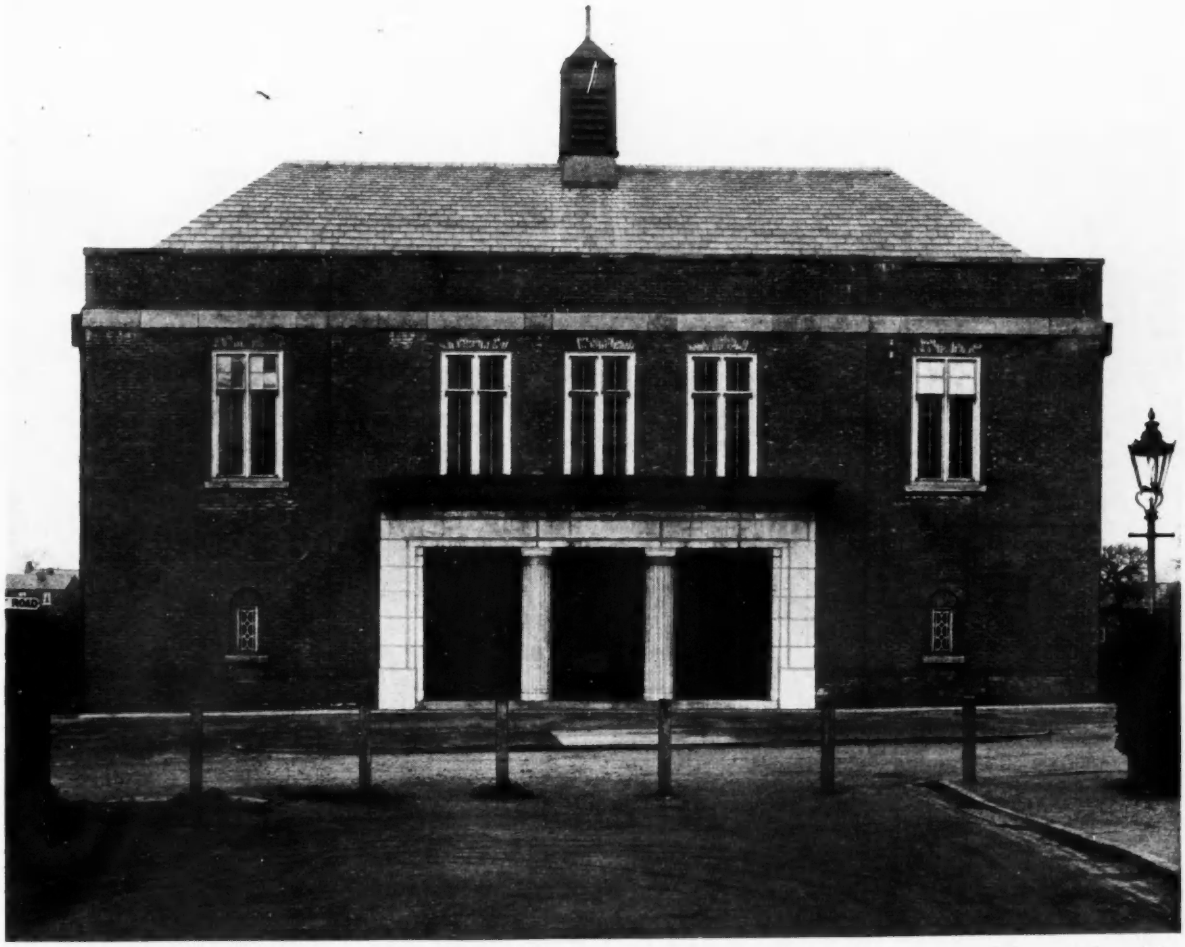
DESIGNED BY HALLIDAY AND AGATE

ALDERLEY EDGE Festival Hall is an attempt to combine in one and the same auditorium the somewhat varied functions of a concert hall, theatre and ballroom. It was erected primarily as a building in which to hold the Alderley Edge Annual Musical Festival, and for this purpose a large platform for the choir or orchestra is required, with an auditorium floor sufficiently sloping to give a clear view of this platform.

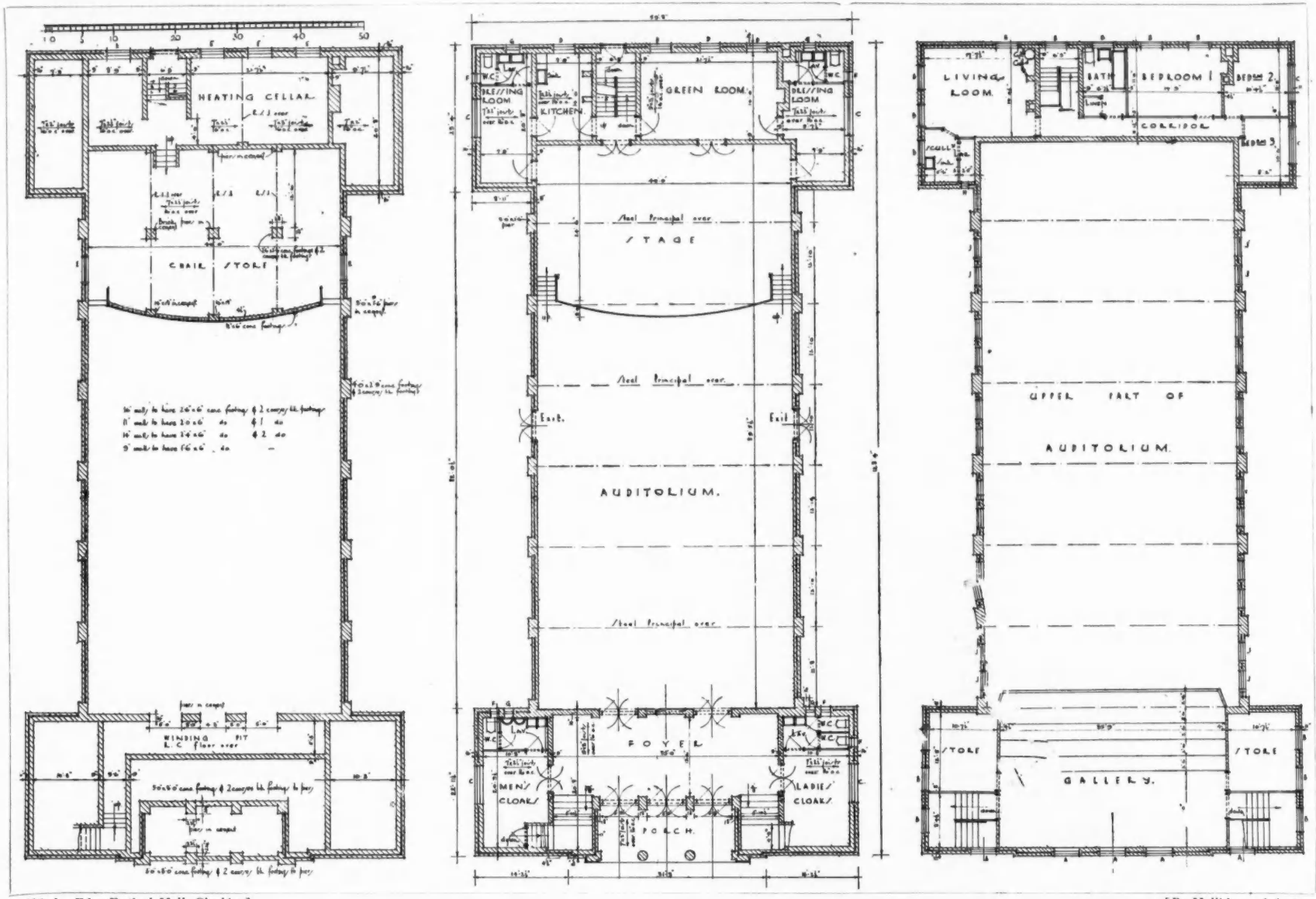
When used for dramatic performances, raked seating is equally desirable, but the proscenium opening requires to be reduced, and this is done by the employment of side curtains, in conjunction with the usual moving drop curtain. Battens, footlights and provision for drop scenes are also needed, and all these are so disposed as to be out of the way when the platform is in use for concert performances.

But for dancing an inclined plane is useless. To meet the conflicting demands, a workable compromise has been devised. The front part of the floor, which measures, in all, 62 ft. long and 40 ft. wide, is permanently level, but the rear 34 ft. is adjustable. This whole area is constructed upon a steel framework of which the forward end is attached to heavy pivots set in a concrete bed, while the rear end can be raised or lowered by a system of jacks, which are connected to a winch operated by hand. This is geared down so that it can if necessary be worked by one person. When the movable floor is lowered there is a gap of about four inches between the two halves; this is filled with an oak strip kept in position by thumbscrews. The floor is also built upon steel springs to give the necessary resilience for dancing.

Certain arrangements contingent upon the two-level floor had to be provided. Thus, the hall is entered through a vestibule and foyer which is level with the auditorium when the floor is in the raised position. When it is lowered a flight of steps is put in place to give access to the hall. Again, half of the



A general view of the entrance front of the hall, which has an extensive marquise, and is surmounted by a flèche. The building is faced with 2-inch local bricks, and has architraves and columns of artificial Hopton Wood stone.



Alderley Edge Festival Hall, Cheshire.] [*By Halliday and Agate.*

Plans of the basement, ground floor and first floor. A chamber is formed below floor level to accommodate the jacks and winch for winding the adjustable floor up and down. The large area of the platform necessary to the prime object of the hall—to house an annual musical festival—should be noted. A caretaker's flat occupies part of the topmost floor



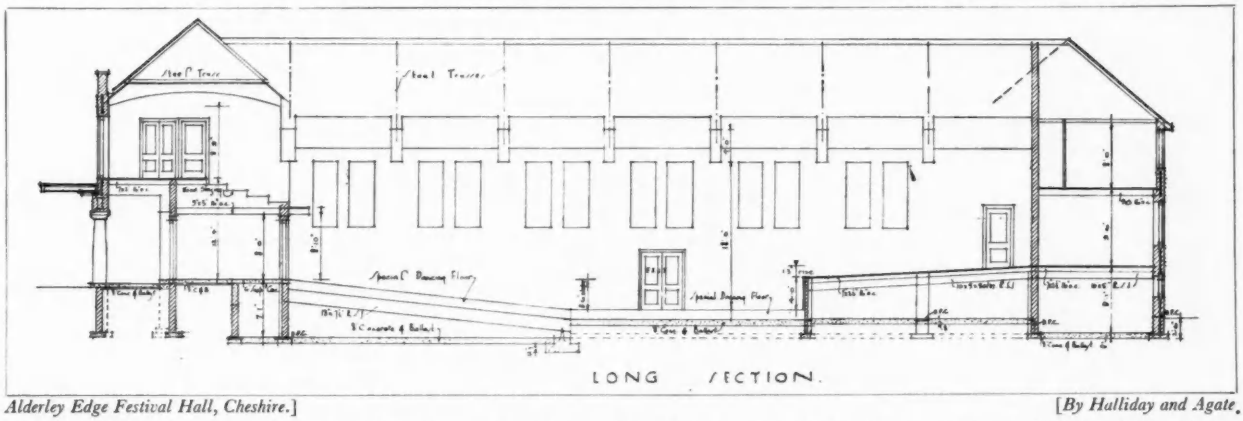
This view gives some idea of the side elevation, which, owing to surrounding obstructions, is not very amenable to photographing. The actual proportions are revealed in the sectional drawing reproduced below.

seats have the back legs shortened so that they stand firmly on the sloping floor. When the floor is lowered they are packed away in a store under the stage.

On either side of the foyer are cloak-rooms and lavatories, and staircases up to the gallery, which is over this part of the building. There is also access to the winding pit below, from which is operated the winch which moves the floor.

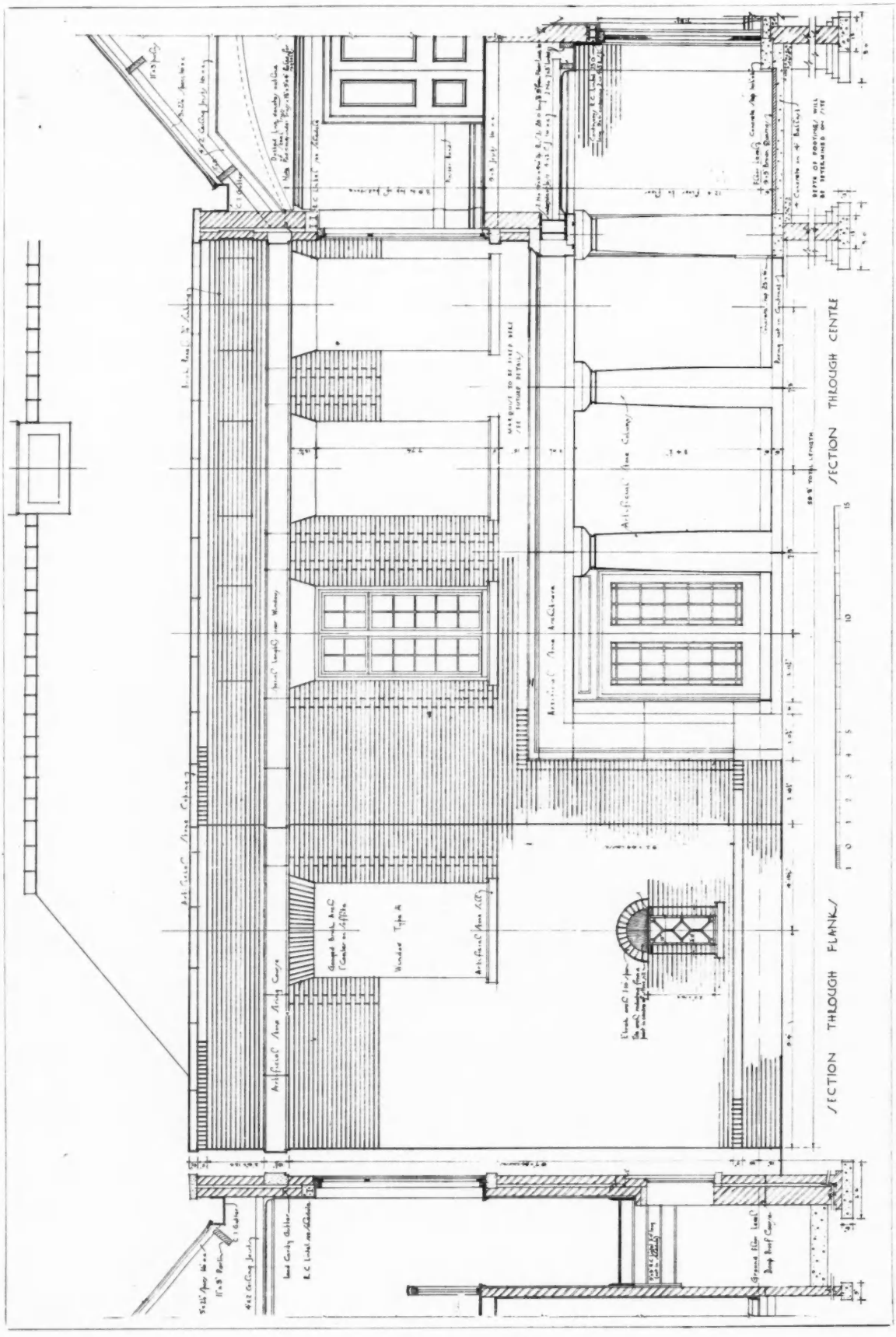
Behind the platform are dressing-rooms, a green room, and a kitchen for the use of caterers. Below these are heating cellar and stores, while upon the first floor is a caretaker's flat of living room, three bedrooms and bathroom.

The building is faced with 2-inch local bricks, with artificial stone string course and coping. The architraves and columns of the main entrance are of artificial Hopton Wood stone. The roof is of grey slates. The windows of the main hall are of wood, the remainder being steel casements in wood frames. The floor of the hall is of oak boards.



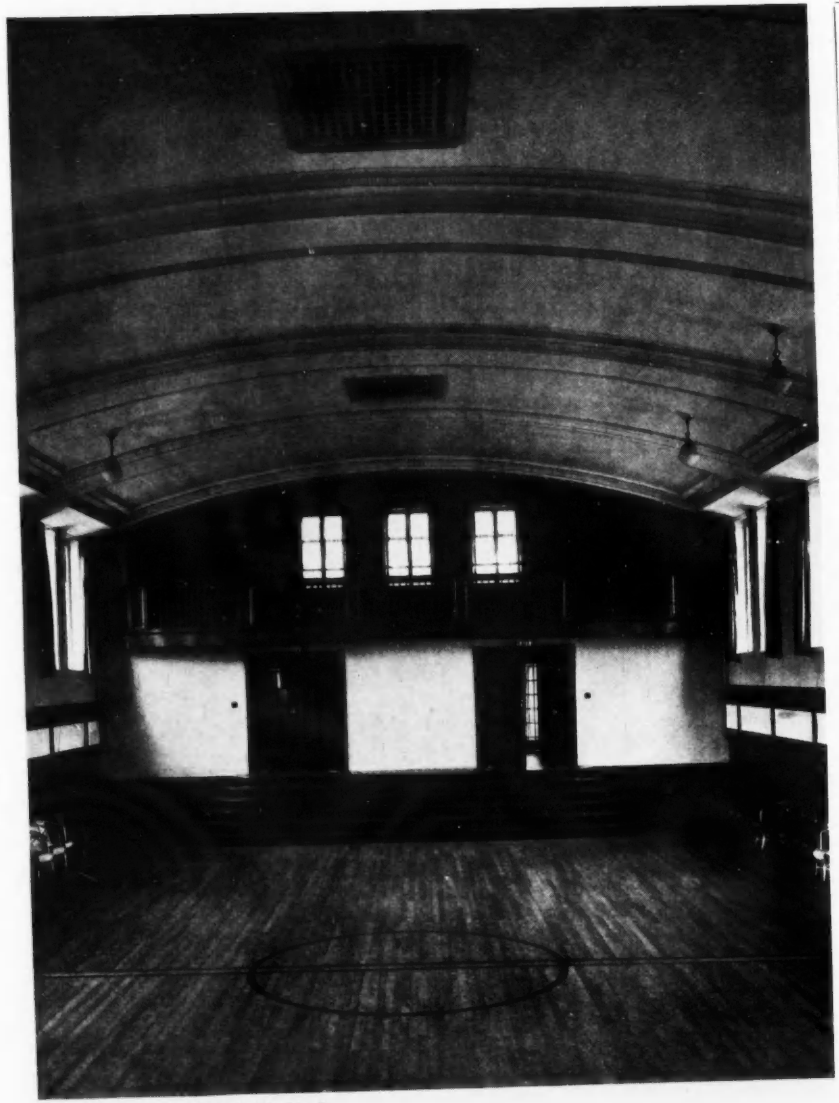
Alderley Edge Festival Hall, Cheshire.] [*By Halliday and Agate.*

This longitudinal section, being reduced to the same scale as the plans on the facing page, may be studied in relation thereto. It shows clearly the large and deep platform, and, at the other end of the hall, the portion of the floor made adjustable—level for dancing, raked for concert and dramatic performances.



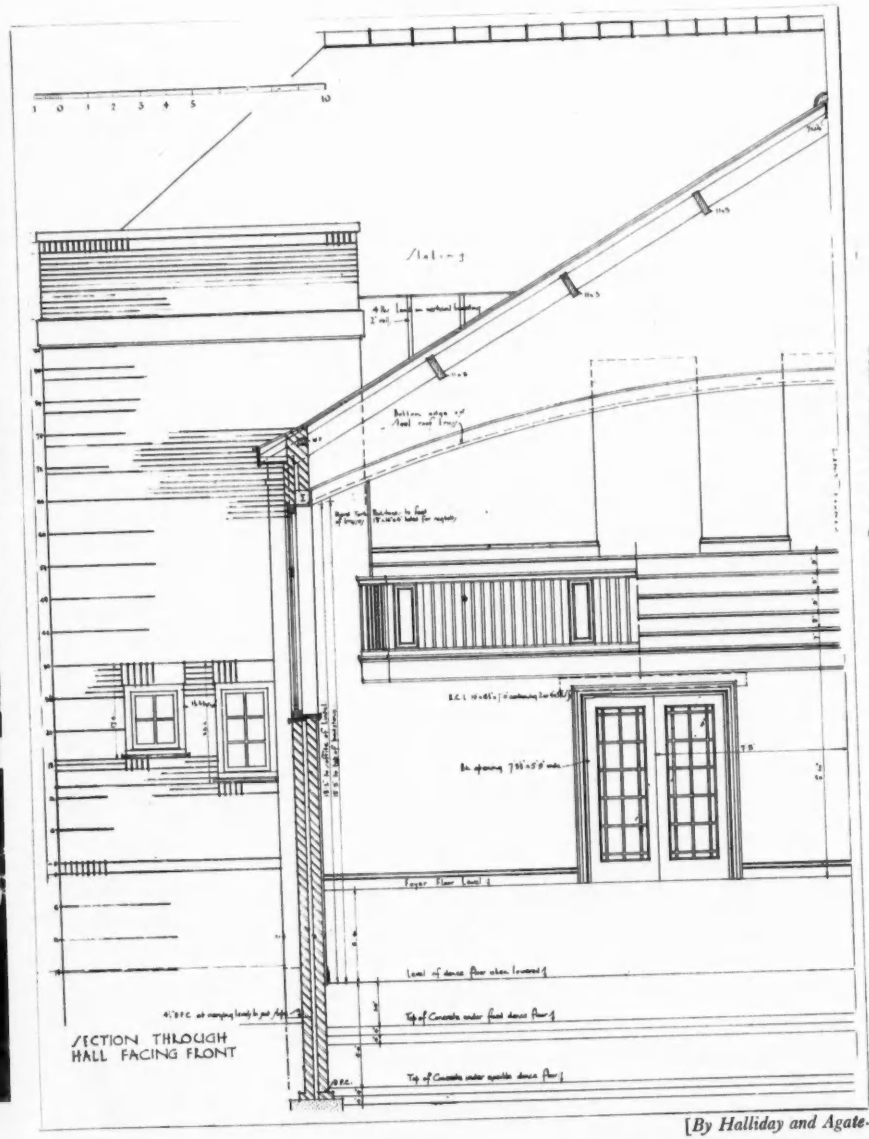
Alderley Edge Festival Hall, Cheshire. [*By Halliday and Agate.*

The architects' drawings of part of the front elevation (*see page 831*), *together with, on the left and right, sections through the flanks and the centre of the hall, respectively.*



Alderley Edge Festival Hall, Cheshire.]

The interior, looking towards the entrance end, with the floor lowered, and showing in position the removable steps leading down to it from the foyer, which is arranged to be flush with the upper level.



[By Halliday and Agate.

A half-section across the hall, taken from the same aspect as the adjoining photograph, and showing the design of the entrance doors and the gallery which runs across this end of the auditorium.



Alderley Edge Festival Hall, Cheshire. [*By Halliday and Agate.*

A general view of the auditorium, looking towards the platform, the rake of which is perceptible, here seen arranged as a theatrical stage : side curtains and the drop curtain fixture form a restricted opening by way of proscenium. When a clear floor is required, the chairs are stored under the stage.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Prevention of Fire in Buildings

IN the House of Commons last week Mr. Grahame White asked leave to introduce a Bill to make further and better provision with respect to means of escape from buildings in case of fire. He said that, unfortunately, there were a very large number of buildings which, either through faulty construction or because there had been neglect to provide proper means of escape, were veritable death-traps in cases of fire. The first clause of the Bill, which had been promoted in the first instance by the United Kingdom Commercial Travellers' Association, provided that, in the case of every new building which was more than two stories in height, or where the upper story of any one floor was more than 22 ft. from the ground, there should be provided such means of escape for the persons employed therein, or sleeping therein, or resorting thereto, as might be considered reasonable in all circumstances of the case. The buildings to which these conditions should apply were tenement dwellings, flats, maisonnettes or buildings which were to be used as hotels, boarding houses, boarding schools, nursing homes, and the like. It was suggested that no such building should be occupied until a certificate had been given by the local authority that adequate means had been provided and that they existed in working order.

The second clause provided in regard to existing buildings that if, in the opinion of the local authority, such building was not already provided with adequate means of escape in the case of fire arising, they might call on the owner, by notice served in writing, to make such provision as might be considered reasonable in all the circumstances of the case, and the owner should then take the necessary steps to make such a provision. The third clause provided that similar conditions should apply in the case of buildings which were being converted and were to be used for any of the purposes he had just described.

A further clause sought to provide that in hotels and similar buildings there should be adequate lighting of passages during the hours of darkness. The clause would also give powers to local authorities to require the owners to provide certain forms of mechanical apparatus for the extinction of fire. The Bill also contained a clause providing that anyone who was aggrieved by any provision should have the right of appeal to a court of summary jurisdiction.

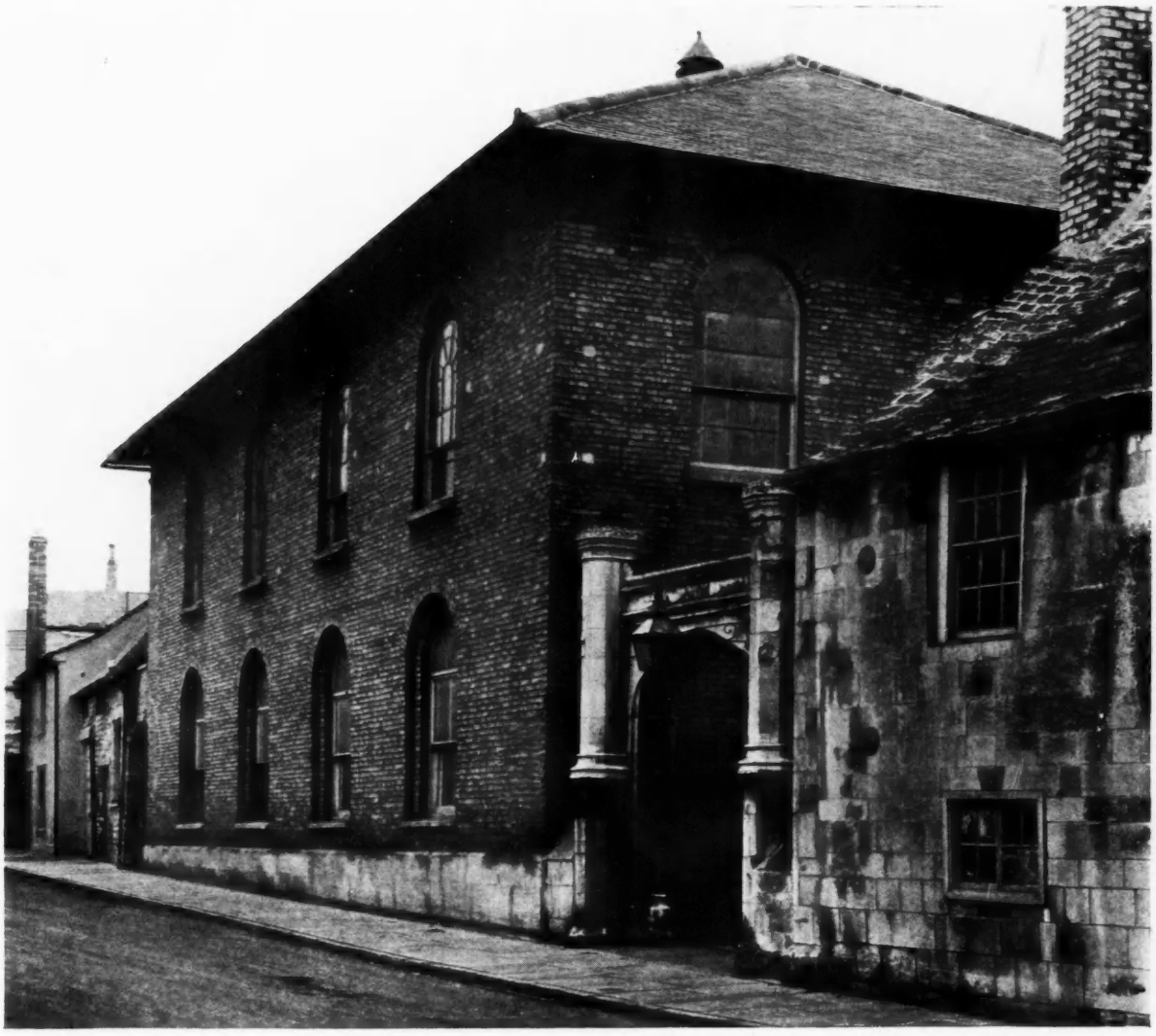
Leave was granted and the Bill was brought in.

Building Industry Unemployed

Miss Bondfield, the Minister of Labour, informed Sir A. Steel-Maitland that during the twelve months ended September 22, 1930, the average number of insured persons, classified as belonging to the building industry, recorded as unemployed in Great Britain, was 121,761.

Importation of Granite

Mr. W. R. Smith, Parliamentary Secretary to the Board of Trade, told Sir R. Gower that during the twelve months ended October 31 last, 244,000 tons of granite (other than setts and pavement curbs and monumental and architectural granite), of a declared value of £188,000; and 109,000 tons of granite setts and pavement curbs, valued at £304,000, were imported into Great Britain and Northern Ireland registered as consigned from foreign countries.



ENGLISH PRECEDENT
No. 144
CONGREGATIONAL CHAPEL, STAR STREET, STAMFORD, LINCOLNSHIRE

This unassuming design is an example of what may be done by the most simple and economical means to achieve the degree of importance and dignity suitable to a building of this type.

The large, semicircular-headed sashes at once differentiate it from the cottage architecture—mostly seventeenth century—by which it is surrounded. The ground-floor windows are set back 4½ inches beyond the plane of those on the first floor, the openings being given a double reveal. Though wall and roof materials alike are alien to their surroundings, the juxtaposition is not unduly harsh.

LETTERS FROM READERS

The New Architecture

SIR,—I have always considered the Crystal Palace, apart from the triviality of its present setting, one of the most magnificent, expressive and significant of all modern structures. Sir Reginald Blomfield seems to think so too, and suggests that there are no modernist buildings in glass and steel today to compare with it. This, I think, is also true, but I doubt whether anyone has, since 1851, had such an opportunity as Paxton had, for it must be remembered that there never has been an attempt since to house a great international exhibition under a single roof.

With smaller buildings of the same type very beautiful new forms have been invented and used, such as the concert hall at the Gothenburg Exhibition, with its parabolic wooden principals and stepped glass roof, a version of which we are now fortunate enough to possess in Easton and Robertson's fine hall for the Horticultural Society in Westminster. It appears to me that the modernists frankly recognize the greatness of the Crystal Palace, for in any historical attempt to view their movement as a whole which I have read, I notice they always start with that structure. As far, therefore, as this building is concerned there is an unexpected track of common ground between them and Sir Reginald. C. H. REILLY

Housing: The Counter-Revolution

SIR,—My attention has been drawn to the leading article in your issue of November 5 under the above heading, in which you refer to the scheme recently put forward by my Federation. I was sorry to read the unfortunate references to the house-building industry under such epithets as "jerry builder" and "Philistines," which rather point to the deduction that you approach the matter from a biased point of view. Abuse is so easy and so meaningless. You remember, Mr. Editor, that Mr. Pecksniff was an architect, but it would be both unkind and untrue to draw any general conclusions from that. House-builders have been extensive clients of the architectural profession, and the housing question calls for the best united efforts of all concerned if it is to be solved in our time.

Apparently you disapprove of a density of twenty houses to the acre for cottages, although I should imagine that the majority of your readers will agree that a density of that degree is quite capable of treatment with amenity. My Federation does not ask "that all the other safeguards against deterioration should be abolished." What the scheme does is to offer to build all the houses required at the rents which people can pay, and to do this at half the cost of the present subsidy. At the same time, the house-building industry would regret any necessity for a return to the bad old pre-war days either for wages for the workmen, financial conditions for the masters or crowded slum building for the dwellers in the houses.

The present policy of housing has resulted in an expense to the country of several hundred millions (approximately £400,000,000) for Council houses, whilst private enterprise, at a cost to the public of about one-tenth of that amount, has produced double the number of houses. What is now proposed is that private enterprise shall be assisted to build the houses which the working people require, and I submit it would be to the benefit of all three parties—the public, the architect and the builder—if some steps were taken, under due safeguards, mark you, for that to be done.

NORMAN MCKELLEN
(SECRETARY, NATIONAL FEDERATION OF HOUSE BUILDERS)

New Ways in Architecture

SIR,—Mr. Harry Holland's letter in your issue for November 19 calls for little comment from me, as we are in so much agreement, but I am glad he stresses one most important and serious consideration: to wit, that, whilst there is in much modern music and architecture evidence of a similar trend, there is between these two realms of art a vital difference. Monstrosities in the one can, by consensus of educated public opinion, be relegated to deserved oblivion, as a mere passing noise not to be repeated, and no great harm is done beyond waste of time. No such effect is possible in architecture. Today, with no limit save compliance with Building Acts and local bylaws, which affect design to but a limited extent, anyone can put up anything providing funds are available; and it is urgently necessary for the credit and dignity of the architectural profession, and the protection of public interests, that the R.I.B.A. and allied societies seek the co-operation of the Government and local authorities to rationalize and control all building development.

It is tragic how many buildings of decent proportion, good materials and happy treatment, are pilloried by execrable and unsuitable neighbours, and how many designs side by side, each good in isolation, are completely out of tune by ill-considered juxtaposition. How many a practitioner wishful of respecting, say, a prevailing skyline, or cornice height, or general architectural treatment and atmosphere is, because there is no possibility of support from public authorities, at the mercy of clients with insistent views of their own!

There is a move in the right direction—limited, certainly, to the preservation of the countryside—in the scheme introduced by Mr. Longden, and now issued for consideration and adoption by architectural societies. It is worthy of the one and, with possible modifications, of both. If this first step can be taken, let the underlying principle be further extended. If the R.I.B.A. is wide awake, the danger of hide-bound traditionalism and of stereotyping design can be avoided, although these dangers are far less grave than the results of the present chaos. In this connection I am inclined to cross swords with Mr. Holland.

There are today, for reasons outlined in my lecture, totally new problems in design, and types of buildings are required serving purposes behind which there are no traditions, and here there does, it seems to me, lie a legitimate field for new and original essays in design; and I seriously suggest that it is at once the duty of the R.I.B.A. to encourage, train and foster such originality, but also to protect the public from ill-digested and free-lance attempts in this direction. I will join with Mr. Holland so far as to insist that a fundamental element in the production of any original forms of architecture is a reverence for, and a knowledge of, all that is summed up in the word "tradition." HUGH MACINTOSH

Preservation of Old Buildings

SIR,—I wonder what the extreme modernists in sculpture will have to say to the glowing words uttered by the S.P.A.B. in praise of the Anglo-American Oil Company's successful conversion of a Queen Anne building into up-to-date modern offices?

Lovers of England and English things will assuredly echo the words of praise. It was just after the Armistice that the finest architectural sites in England, and, to a lesser degree, Scotland and Ireland and Wales, began to be littered with buildings like cotton mills, square, straight, pseudo-efficient and undeniably hideous. No one, to be just, not even a modern poet, has ever claimed beauty for the new structures. All that has ever been said for them is that they were in the style of erections now going up in the United States, Sweden, or some other foreign country.

That is always enough for the sheep who are our modern generation. It is well that they should be reminded that Queen Anne, after all, is not dead.

ALFRED PRAGA

ARCHITECT'S FEES: COUNSEL'S OPINION

G. M. writes: "*I am in the midst of a dispute with some clients with regard to the payment of fees. After preparing unusually elaborate preliminary drawings and perspectives, with which at the time my clients expressed entire satisfaction, they have now decided to either abandon the scheme or employ another architect. They kept me waiting some months before conveying to me any such idea, and then inquired what I would consider a reasonable fee. Naturally, I sent them a copy of the R.I.B.A. Schedule of Professional Charges, and enclosed an account for services based thereon amounting to 1½ per cent. upon the estimated cost of the works.*

"*My clients then handed the matter over to their solicitors to deal with, and after I had tried to keep open the way to a friendly settlement, I have now had to instruct my solicitors to issue a writ for the amount of my account. It is at their request that I am now making investigations to try and find as many precedents as possible wherein the Courts have upheld our Institute's Schedule in such matters. What is your expert's opinion?*"

I am unable to discover a case where the Courts have taken judicial notice of the existence of the R.I.B.A. Schedule of Professional Charges, so that unless the charges are agreed to, either expressly or by implication by the parties, at the time of the formation of the contract, then in my view they will not govern the terms of the contract.

It appears that attempts have been made from time to time to induce the Courts to accept these charges as customary, but so far as I am aware, without success—see Gwyther *v.* Gaze (1875), Hudson on Building Contracts, 3rd ed., Vol. II. p. 21; Farthings *v.* Tomkins (1893), 9 T.L.R. 566. The observations of Lord Coleridge, C.J., in Burr *v.* Ridout (*The Times* Newspaper, February 22, 1893) set forth the position with clarity. In that case there was a dispute as to the fees to be paid to the architect owing to non-erection of the buildings on account of the high cost, but no provision was made in the contract for such contingency, and the question was whether the R.I.B.A. Schedule of Professional Charges would apply.

If the parties to that contract had not incorporated the said schedule as a term of the contract, then it would be necessary for the jury to decide what sum should be paid for the work and labour done, and they would not be bound to arrive at the same sum as the scale fixed by the R.I.B.A. The Lord Chief Justice said: "I will not allow the Institute to dictate to juries what sum is to be paid for work not done, and unless there is clear proof that they (the R.I.B.A. Schedule of Professional Charges) were part of the contract I will treat the rules of the Institute as mere waste paper."

On the other hand, Kennedy, J., in Whipman *v.* Evenlt (Roscoe's Digest of Building Cases, 4th ed., 171) has held that it is right to take into consideration the practice adopted by a large proportion of the profession as to what is a proper fee, and to use it as a guide in arriving at a reasonable sum.

I have dealt with the general law on the subject. The question for consideration is whether it applies to the facts before me. I observe, therefrom, that a writ has been issued, consequently there is an action pending, and the matter is *sub judice*. In the circumstances, I decline to express an opinion as to whether the general law governs the particular facts before me.

E. F. I.

HOUSE AT GREGYNOG

DESIGNED BY T. ALWYN LLOYD

THIS house at Gregynog, near Newtown, North Wales, is built of eleven-inch brickwork, finished with cement roughcast, with a light colour-wash, while the roof is covered with North Wales green slates. Goitre rough facing bricks have been used in constructing the chimney-stacks.

Wood casements of the type that open outwards in pairs in the centre are provided, to give the maximum of ventilation. The floors of the entertaining rooms and of the hall are of 1¼-inch pitch pine blocks, but the kitchen and scullery have tiled floors.

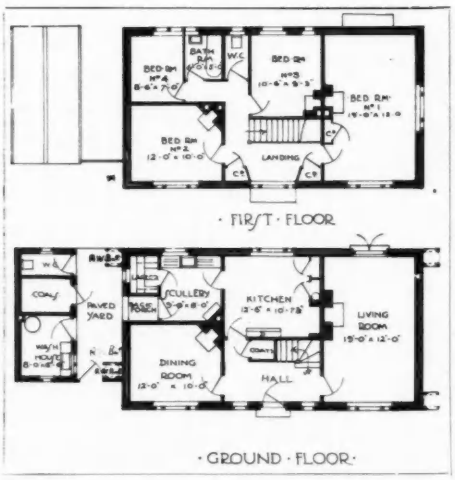
As will be seen from the plans, a paved yard leading to an isolated washhouse, coal store, etc., adds to the amenities in a very compact plan.



A general view from the south, showing entrance front.



The view from the west shows the isolated washhouse, etc., and the french windows which open from the dining-room to the garden.



The ground- and first-floor plans.

MODERN CINEMA DESIGN

Excerpts from Mr. J. R. Leathart's Lecture at the R.I.B.A.



A perspective drawing, by Laurence Wright, of the front of the new cinema at East Sheen (Leathart and Granger, architects). "Upward flooding of wall surfaces from concealed sources is combined with concentrated visible illumination in the cone-shaped urn at the top of the central bay feature, together with the neon sign title panel. Three distinct locations of light are arranged for—one at the top of the bay, one at its base, and one on the canopy top."

THE modern cinema in all its complexity of planning and equipment has been aptly described as the architecture of pleasure. It is therefore important in forming a critical opinion of this type of building to regard its appeal as being essentially directed to the great majority of average people who find in their picture theatres stimulation and pleasure in the atmosphere of warmth and comfort, of colour and decoration—exotic in many cases, it is true—as a contrast with the drab monotony of their daily routine.

The outstanding development of the modern cinema is in its mechanical equipment, both as regards heating and ventilation, and electrical installation. The science of acoustics is now realized to be of greater importance as a basis upon which the auditorium is to be shaped than the selection of the style for the interior decoration.

In the new East Sheen Cinema the volume per seat is 154 cubic feet. The ceiling is parallel with the floor; each has a rake of 1 in 10. The reverberation coefficients for this theatre are :

Full auditorium	..	1·0 seconds
2/3rd ,,	..	1·25 ,,
1/3rd ,,	..	1·5 ,,
Empty ,,	..	2·0 ,,

The rear walls only are lined with acoustic tiles, as absorbent surfaces. The talking film produces primary reverberations set up in the recording studio, which are in turn augmented by the reverberations set up within the auditorium itself. To reproduce the sound as originally taken, it is therefore desirable to eliminate these secondary or house reverberations as much as possible. This can be satisfactorily accomplished by reducing the volume to within the limits quoted previously; by the use of directional loud speaker horns behind the screen—the most common form adopted for talking apparatus installations—which can be adjusted to cover all seats; by the use of absorbents in the rear auditorium walls, and by thick carpeting on all floors with heavily upholstered seats. In addition to these precautions care should be exercised to eliminate the risk of parallel side-wall inter-reflection or flutter by absorbents either in the form of acoustic wall covering or by draping the walls with decorative banners or hangings. The fan-shaped auditorium, both in plan and section, counteracts to a great extent the tendency to acoustical imperfection, providing that the ratio of the rear auditorium width to the proscenium width is not excessive.

Usually the gallery front is on a level with the loud-speaker horns, and particularly if it is struck from a centre situated at the back of the stage there is a great risk of the gallery front returning the sound falling upon it in a concentrated form upon the loud speakers. This may cause echoes or stationary waves. To avoid this fault the front is better polygonal on plan, with three or more straight facets and inclined backwards on section. It is necessary, too, to consider the exclusion of noise from traffic outside the building; the insulation of the organ chamber from the structure of the main building itself, and the prevention of noise therefrom penetrating to adjoining property; the insulation of all moving machinery within the building, such as ventilation fans, generators and transformers. Solid brickwork in cement of adequate thickness is the remedy for the first two sources of weakness. The insulation of internal running machines is a matter of treatment with cork, rubber, or canvas, used as the contingencies dictate.

The volume of the auditorium of the Richmond Cinema is somewhat greater than at Sheen—170 cubic feet per seat. The atmospheric treatment of the interior decoration governs the high front portion, and this contributes to the increase in volume. The reverberation coefficients are :

Full auditorium	..	1·5 seconds
1/3rd ,,	..	2·3 ,,
Empty ,,	..	3·4 ,,

The only absorbent is on the front of the transverse lighting gallery. The results are particularly satisfactory, as the loud speakers do not require excessive amplification to carry the sound to the rear seats. The introduction of sound reinforcing coves at the back of the auditorium contributes to this result.

The increasing tendency for kinemas to function equally as theatres must serve as a warning that too many absorbent surfaces in an auditorium will render the natural human voice and the orchestra somewhat lifeless in effect and create a tendency to flatten the tone thereof.

The safety of the public in places of entertainment must obviously be the first consideration, not only of the licensing authorities, but of the architect himself. Nevertheless, it has to be admitted that the English regulations considerably impede the imaginative and spacious planning we are accustomed to find in modern Continental work. Perforce must the English cinema be separated into compartments by means of cut-off fire-resisting doors and screens, and the cramped effect of passing through numerous doors to reach the balcony is apparent in all instances.

In cinema design the outstanding current tendency is to internationalize decorative forms. That is to say, the recognized architectural characteristics of each particular country are being gradually abandoned. Hitherto it has been possible broadly to place national tendencies with a certain amount of surety; for instance, the American passion for expressing architecture in terms of Roman orders, influenced by an almost unlimited expenditure of the dollar.

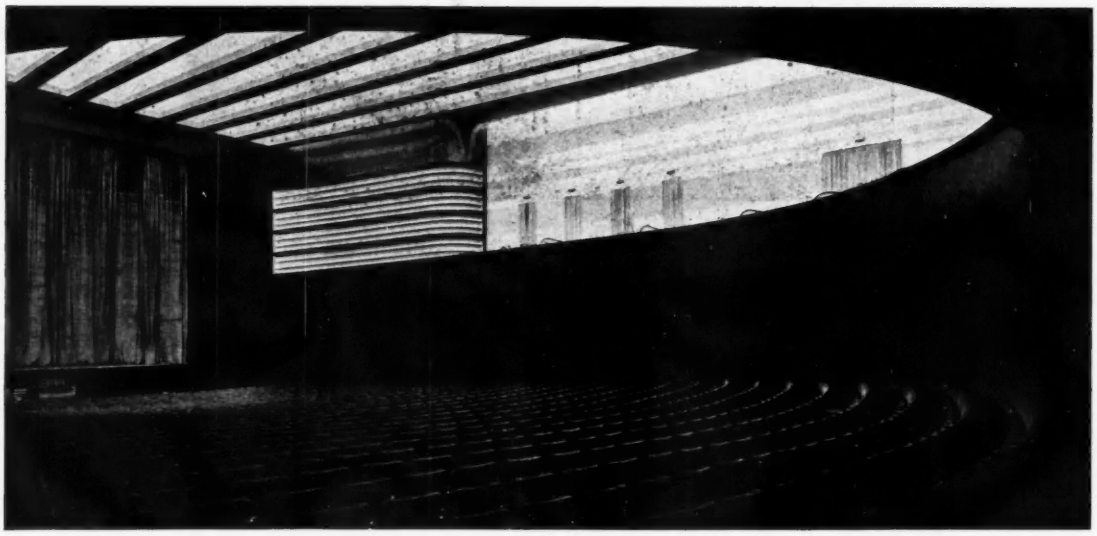
Consider for a moment the tendencies of recent English interior design. Since the Armistice there have been three definite phases: first, the Neo-Grec; second, what may be termed the umbrella period, under which were sheltered and nurtured the Chinese, Egyptian, Spanish, Italian and Tottenham Court Road styles; and third, the infiltration of Continental ideas, largely from French sources.

This confusion of thought, this inability to produce a reasonable standard of achievement, has been due to a great extent to the prevailing habit of English theatre architects of considering the decorative scheme as an afterthought, and then of requesting firms who deal in everything from frocks to furniture to submit schemes and prices for fibrous plaster and paint. The lowest tender is invariably chosen, irrespective of creative merit. As a result, our theatres are swamped with waves of fashion of miserable mediocrity. In but few instances are theatre architects individually responsible for the complete design and ensemble of their cinemas.

Chronologically, the Kensington Cinema belongs to the first post-war phase mentioned previously. It has all the paraphernalia of the Neo-Grec —coffers, entablatures, frets, rondels and the rest of the characteristic features of this style. It was opened five years ago, and, together with the recently opened New Victoria, demonstrates the extreme ends of the gamut of styles. In Mendelsohn's famous work, the Universum, Berlin, finality in elimination of decorative motifs and the possibilities of the integral use of light as definite elements in the treatment of the interior are vigorously demonstrated.

The outstanding point of difficulty in interior design is the treatment of the junction of the balcony front with the side walls of the auditorium. The spandrel-shaped wall surfaces formed by the rake of the balcony are only emphasized by elaboration. The common method of proportioning the wall treatment with applied architecture to suit the clear height from floor to ceiling in front of the balcony, if carried through to the rear of the auditorium, becomes truncated and excessive in scale as it passes the balcony. This is the primary defect in the use of pilaster and entablature as a continuous side-wall form of decoration.

The Skandia, Stockholm, has been described as the most beautiful theatre in the world. It is therefore interesting to observe the influence of the atmospheric type of interior of its treatment. As in all modern Scandinavian work, there is an extraordinary quality of aloofness of a clear, cold beauty, which is as national in expression as the music of these northern races.



The Universum, Berlin (Erich Mendelsohn, architect). "*Finality in elimination of decorative motifs and the possibilities of the integral use of light as definite elements in the treatment of the interior are vigorously demonstrated.*"

Welwyn Theatre, Herts, is an English example of the prevailing breakaway from tradition. This auditorium shape is based on acoustical considerations and is primarily dictated thereby. The ceiling acts as both a light and sound reflector.

The important aspect of the appearance of the kinema exterior at nightfall has only comparatively recently been appreciated to its full extent. There are three types of external illumination, the first where the light units are part of the structure of the design in which they are interwoven, as in the Titania-Palast, Berlin. In this case, except for the concentrated cornice lighting, the front is not flooded. The effect is obtained by contrasting horizontal illuminated panels with dark wall surfaces. The possibilities of this original treatment are apparent, and

point to a profitable field of invention in this direction.

The second type of night architecture is illustrated in the new Sheen Cinema. Upward flooding of wall surfaces from concealed sources is combined with concentrated visible illumination in the cone-shaped urn at the top of the central bay feature, together with the neon sign title panel. Three distinct locations of light are arranged for—one at the top of the bay, one at its base, and one on the canopy top. In addition, the canopy soffit is flooded and the light reflected from a "Staybrite" steel surface under. The effect of these light sources can be accentuated by using colour media in the flood lamps.

The third type of illumination is from within the building, through decorative windows or perforated grilles, as in the Piccadilly, Berlin; but the possibilities for conspicuous effect are somewhat restricted by this method.

There is the utmost conflict of opinion between cinema owners and their architects as to the amount of space on the front of the building which must be allocated to advertising matter. On the one hand, the claim is made that the man who runs a picture house is selling a film entertainment and must be allowed to advertise this fact on his building. From the architect's standpoint this necessity is admitted on principle, but he knows from bitter experience that the extent of the activities of the owner in this direction are by no means limited.

It is an ironic commentary upon the whole question of publicity that the prospective picture patron must be stunned by flashing lights, by crudely-painted scenic effects spread across the façade, perforated only to allow access to the entrance doors, and by 48-sheet posters printed in the most flamboyant colours known, before he can be enticed within the cinema. It is, in fact, entirely unnecessary to over-advertise; but American boosting methods in the film trade are accepted as the apotheosis of publicity in this country.

In the New Victoria Theatre the central entrance features have succumbed to the dictates of the promoters, and their clean vertical lines have been obliterated by the neon lettering at the top and the sprawling advertising frames below; this, despite the fact that reasonably adequate space has been provided by the architect for advertising purposes at eye level. This clash of wills between client and architect usually results in a victory for the former.

In practice an architect must realize that his employer cares not for his architecture, and would prefer his cinema façade to be a bill-posting station. A bylaw is urgently necessary to control cinema front advertising in our towns and cities; with the growth of a sense of civic dignity on the part of the public, this must assuredly come to pass.

There are some outstanding tendencies in the best modern cinema design which should be briefly recorded. The simplification of decorative form, together with greater use of illumination as an integral part of the design, is the most important. There is as yet no articulate expression of modernity in England. We are in this country going through a form of "Rake's Progress"; that is, the Continental scrap-heap is being raked for ideas; every passing fashion and whim is being seized upon, and there is much wandering into the wilderness of modern design without the sheet-anchor of architectural propriety—the classic order. Periods of tribulation usually precede those of happiness, and our travail will be worth while if we emerge therefrom with a national characteristic modern expression of English cinema architecture.

ESQUISSE FAVOURED

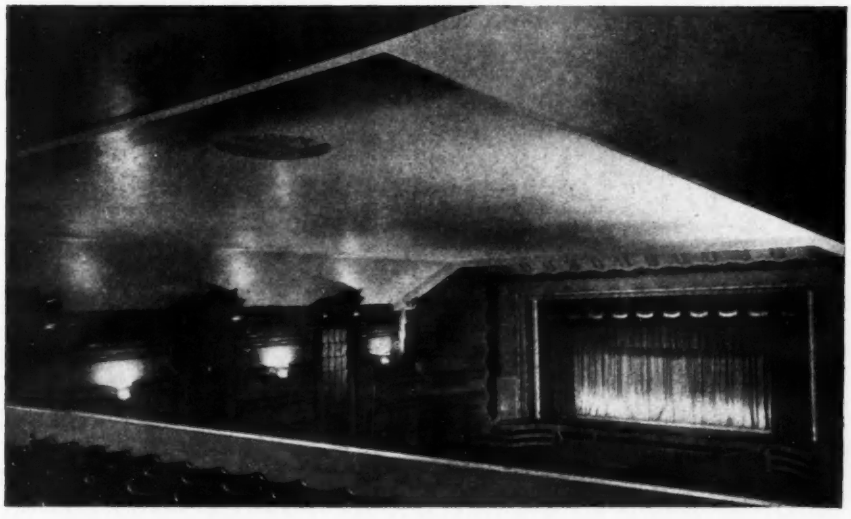
W. Yorks. Students' Debate

Initiated by associate members of the above society, a discussion took place at its Leeds headquarters on November 27, the question being whether esquisse design was essential to the furtherance of good architectural design. Mr. Allan Johnson occupied the chair.

Mr. D. Steel, for the affirmative, said he was in favour of the esquisse method because its object was to bring out as quickly as possible a student's ideas on a given subject in its most easily criticizable form. Esquisse had other qualities: it quickened powers of observance, and the subject always, whenever encountered afterwards, evoked a keener interest in its possibilities. He did not think that the method was sufficiently practised in schools of architecture.

Speaking in the negative, Mr. P. J. N. Penlington thought that the method prevailing in many architects' offices was far superior to that of the schools. Office practice made a greater appeal to him. Interchange of ideas among the staff was no only permitted but encouraged, and this resulted in a far better design being produced. The esquisse method was bad, because it required them to master the essentials of the subject, and make all necessary sketches, to produce a finished design in one day—a task which was almost impossible.

Mr. F. W. Allison, Mr. E. Seel, Mr. G. L. Broadbent, Mr. Norman Culley, Mr. Butler Wilson, and Mr. R. A. Easdale also spoke. Those present voted in favour of esquisse designing.



Welwyn Theatre, Herts. (L. de Soissons and A. W. Kenyon, architects). "An English example of the prevailing breakaway from tradition. This auditorium shape is based on acoustical considerations, and is primarily dictated thereby. The ceiling acts as a light and sound reflector."

THE SKETCH CLUB

SEVENTEENTH SESSION

A.A. MEMBERS' HOLIDAY SKETCHES

THIS is a "visitors' session." By kind permission of the artists concerned, a small, arbitrary selection has been made from this year's exhibition of holiday sketches by members of the Architectural Association. The show, open to all members, was remarkable for the variety of subjects and of media — etchings and even photographs were hung. Usually the one has happily dictated the choice of the other.

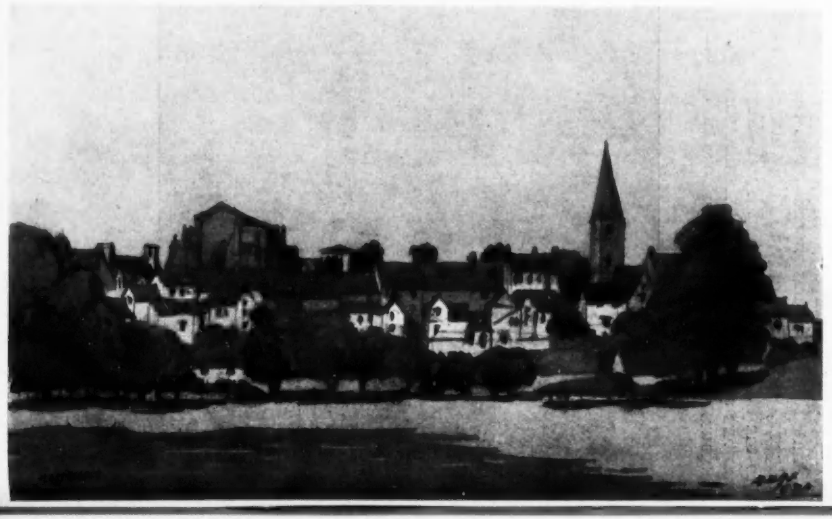
Among the essays that bear some relation to architecture, watercolours are in the ascendant, for there is nothing like your watercolour for realizing effects of atmosphere, and it appears that it is by the tricks of light on buildings that the architect is chiefly beguiled when, on holiday, his mind turns to his besetting art. The study of "Pontresina," by A. B. Yeates, is typical, in its soft brightness, caught in the moment of realization. The two by A. B. Knapp Fisher are particularly luminous; the originals are suffused with a rich, quiet, golden glow which black printing ink is quite powerless to suggest.

H. T. Brock Griggs's "In the City," a large etching (with some fascinating middle tones in aquatint) of the



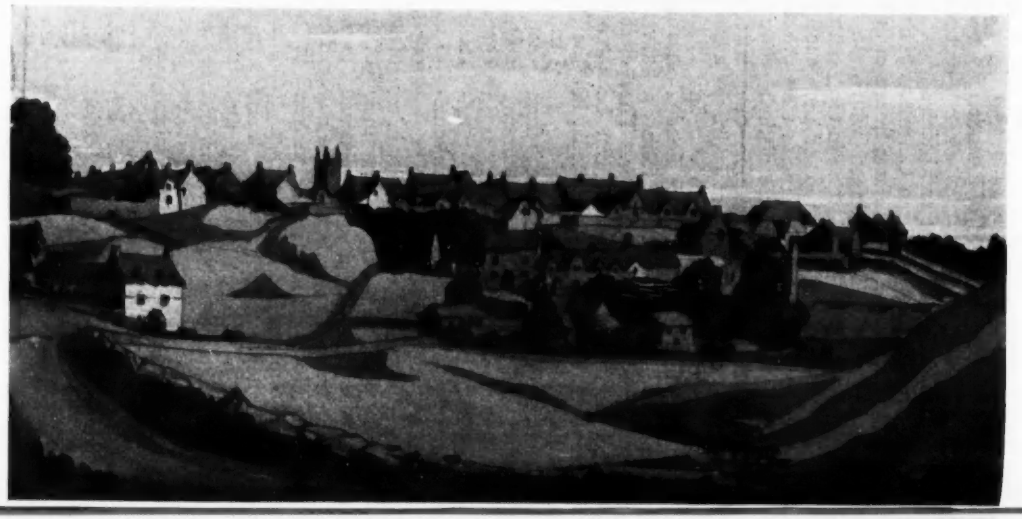
(Watercolour : 9″ × 11½″) *By A. B. Yeates*

Pontresina.



(Watercolour : 12″ × 7⅞″) *By A. B. Knapp Fisher*

Malmesbury.



(Watercolour : 15⅛″ × 7⅝″) *By A. B. Knapp Fisher*

Sherston



(Etching : 16¼″ × 20″) *By H. T. Brock Griggs*

In the City.



(Crayon and tinted wash : 19½″ × 22¼″) *By P. J. Westwood*

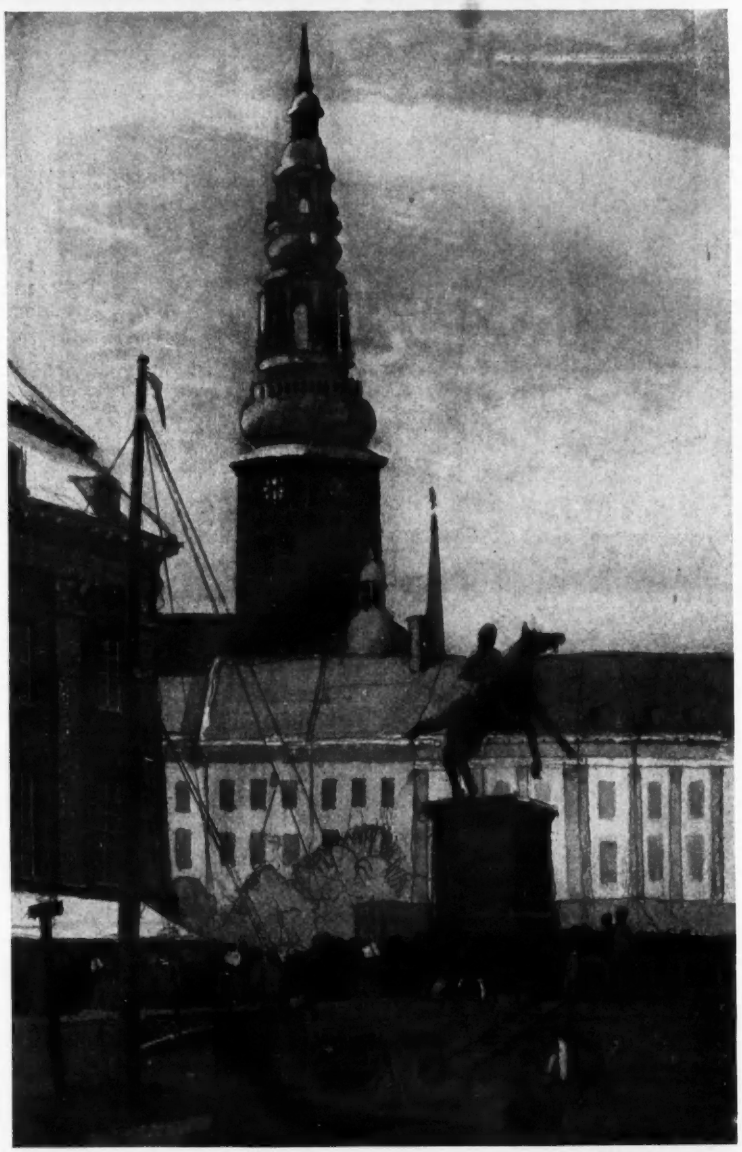
The Salute, Venice.

Royal Exchange, might be termed an essay in cast shadows, and shows how even metal upon unyielding metal may be made to trace a particular mood.

There is the glow of the South about P. J. Westwood's "The Salute, Venice," charging with lemon and rose a study in form that is almost stereoscopic in its realization; and the colder light of the North about D. H. Beaty Pownall's "Copenhagen," accentuating its sharply expressed voids and solids.

In "Rue des Tonneliers," by H. W. Richmond, there is the authentic touch of the architect: pencil and brush trace a reliable record of forms and textures. The "Malta" of H. M. Fletcher does not reveal the burning Mediterranean of high summer, but is quiet in tone, with interest centred on the interesting shapes taken by the bastions and curtain walls. There is clever brushwork and some very hot colour in C. J. E. Marshall's "Sloop Inn, St. Ives" that shows the amenability of oils to certain purposes.

The feeling for form has guided the hand of Miss Raemakers, and the artist's economical mind has eliminated all but essentials. C. M. Shiner's "Venice" is frankly impressionistic, but shows judgment in the grading of pencil tones. Bruce Flegg's Brittany watercolour is one that suffers most by reduction to mere



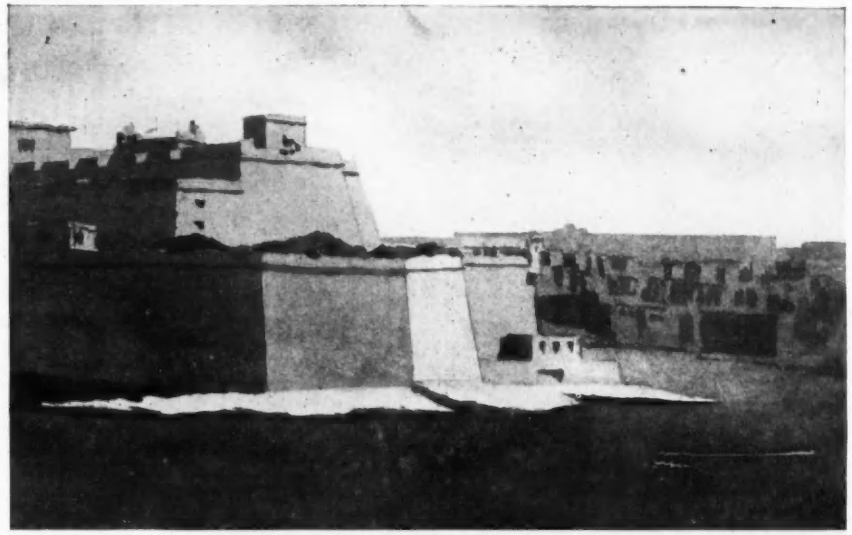
(Watercolour : 8½″ × 13¼″) *By D. H. Beaty Pownall*

Copenhagen.



(Pencil and wash : 8¾″ × 12½″) *By H. W. Richmond*

Rue des Tonneliers.



(Watercolour : 9¾″ × 6″)
By H. M. Fletcher

Malta.

black and white : even the shadows are luminous.

Casting back, I note that almost without exception, where figures are introduced, their drawing is weak, a common failing but remarkable, considering that much of the architect's life is spent devising backgrounds for the human form.

H. F.



(Oil : 13½″ × 16″)
By C. J. E. Marshall

The Sloop Inn, St. Ives

A.A. MEMBERS' HOLIDAY SKETCHES



(Conté : 13⅜″ × 10¼″)

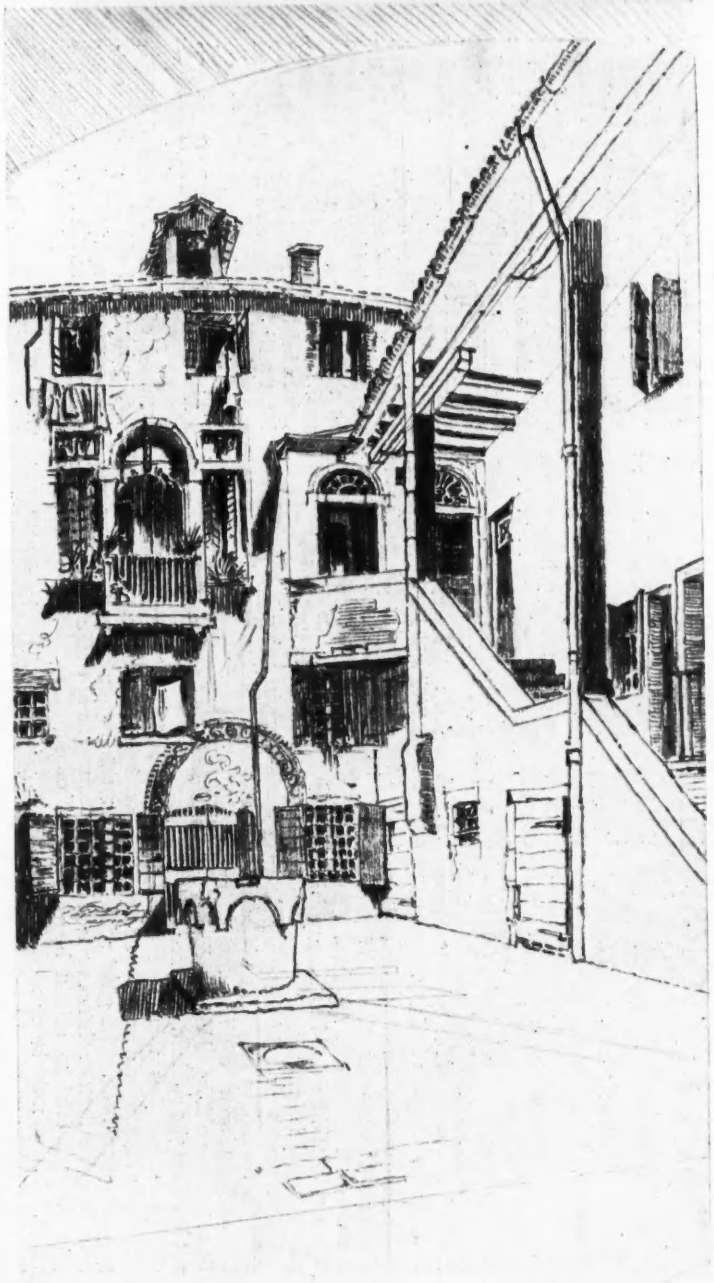


(Conté : 13¾″ × 10¼″)
By Miss Raemakers
La Lieutenance de Port

(Pencil : 6″ × 11½″)
By C. M. Shiner
Venice.

(Watercolour : 10¼″ × 7½″)
By Bruce Flegg
Rue St. François : the Covered Market, Quimper, Brittany.





QUESTIONS THAT ARISE

Planning of School

F. G. C. writes: "*I have been consulted as to the planning of a building for use as a small private preparatory boarding school. Can you inform me as to what cubic space per head it is usual or desirable to allow in such a building for (a) dormitories, (b) class-rooms? Also, what works of reference should I consult on these and other points that arise in the design of such a building?*"

The information your correspondent desires is to be found in the old Building Rules of the Board of Education. These rules still form the basis on which plans should be prepared.

With regard to the building regulations for secondary schools, there must be a floor area of not less than 65 sq. ft. per child and the cubic space not less than 700 cubic ft. No dormitory should contain less than three beds, and there should be a space of at least 3 ft. between beds. In girls' schools it is desirable that for those over twelve years of age cubicles should be provided. These may be formed either by means of curtains or partitions, or a combination of both. In any case, the curtains or partitions should not be carried right up to the ceiling, and windows should be arranged on each side of the room so as to ensure cross ventilation. These windows should be provided with hoppers at the bottom, so that a constant stream of air may pass through the room during the night.

For classrooms, a space of no less than 16 sq. ft., and preferably 18 sq. ft., should be allowed. Desks should accommodate one scholar only, and it is best to have independent chairs and not a seat fixed to the desk. G. H. W.

Party Wall

G. Y. writes: "*How can I determine if the external wall of my house is a party wall?*"

The definition of a "party wall" under Local Authorities bylaws is as follows:

(*a*) A wall forming part of a building, and being used or constructed to be used in any part of the height or length of the wall for separation of adjoining buildings belonging to different owners, or occupied or adapted to be occupied by different persons.

(*b*) A wall forming part of a building and standing in any part of the length of such wall, to a greater extent than the projection of the footings on one side, on grounds of different owners.

The general rule is that the common user of a wall separating properties of different owners is presumptive evidence that the wall and the land on which it stands belong to the owners of those properties in equal moieties, as tenants in common.

When, however, the precise extent of the grounds can be ascertained, the presumption of a tenancy in common does not arise. A. T. A.

Wiring Thatched Roofs

T. C. writes: "*I am having some cottages re-thatched and I wish to cover the roofs with galvanized wire netting to prevent damage by high winds and birds. What is the best method of securing the matting, especially in the valleys? What size of mesh should be used?*"

I would suggest using half-inch mesh galvanized rabbit wire. The most vital points to protect are the verge, the eaves, and the "roving" or capping, below which birds commonly enter. The thing to guard against in fixing is any spike or rod driven *down* through the thatch, which might afford an easy passage for wet. Wiring over the ridge may be bound through the roof from side to side with wire, and at the eaves and verge one end of the wiring may be stapled to the wall face and the other wired to the hazel pegs securing the runners.

Hips and valleys should be covered with a width of wiring laid in the direction of their intersection and wired to the edges of the netting covering the slopes. Any fixings necessarily driven into the thatch should be pushed in at a slightly upward slope so as not to conduct water. A. B.

COPENHAGEN, PAST AND PRESENT

IT is a little staggering to hear that the ordinary bicycle has played the most important part among improved means of traffic in the development of the outer districts of Copenhagen. When the period of scarcity of dwellings began after the world war, a great exodus took place to the "lots" of the so-called *Parcelforeninger* (lot-owners' associations), although these lots were far from being ripe for settlement. Since then it has been a great task for the associations as well as the authorities to straighten things out. The community has assisted greatly by granting public loans for the construction of roads and sewers.

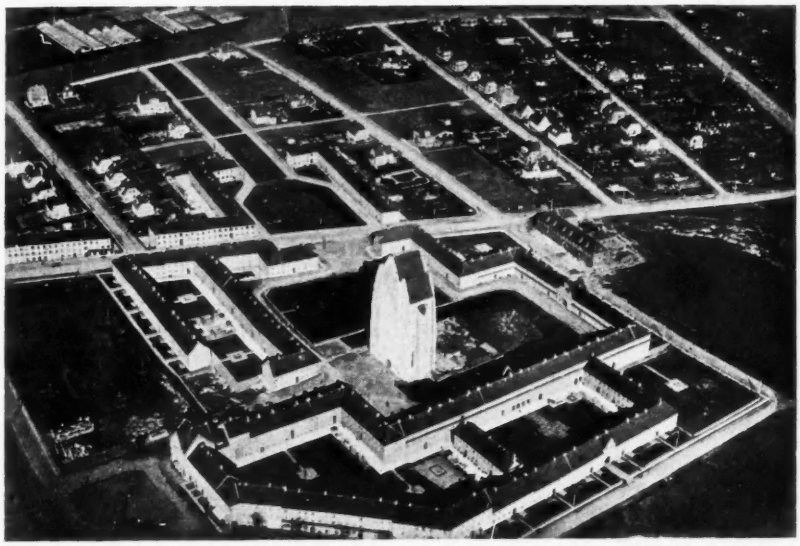
In recent years the population has become infected with a keen desire for better homes, with the result that the standard of the houses and dwellings has, without legislation, been considerably improved. The great turning point occurred at the beginning of the present century, when three districts were annexed to the capital, providing the opportunity for housing a constantly increasing population in good open settlements under rural conditions.

In the outer districts of the city the *Parcelforeninger* embraces about 170 associations, representing about 13,000 lots. On all these lots, aggregating in total an area of about 2,500 acres, cottage restrictions are imposed. The regulation of the outer districts in accordance with the restrictive stipulations is not, however, limited to the lot-owners' associations. An open settlement, partly with serial houses



[*From* Copenhagen: Development and Town Planning Conditions.

The quarter surrounding Amalienborg Palace, Copenhagen. The plan of the streets mainly dates back to the seventeenth century. On the left is seen the Marble Church.



[*From* Copenhagen : Development and Town Planning Conditions.

Plan of Settlement at the Grundtvig Church, Copenhagen. Only the tower of the church, designed by P. V. Jensen Klint, has yet been built.

and partly with various types of three-story houses, has also been secured on other areas owned partly by private persons and partly by the community. Among other districts are the quarters surrounding the Grundtvig Church (see illustration on this page) at Borups Allé and Genforenings Plads.

The most recent progress in dwelling culture in Denmark may especially be ascribed, as in other countries, to the fact that private building speculation was abolished completely during the building crisis which followed in the wake of the war. Not only was the municipal building activity far more guided by town-planning considerations than formerly, but a general condition for receiving municipal support was the fulfilment of corresponding requirements in respect of good and justifiable building plans.

In the older quarters of the city, five-story dwellings are prevalent, but here, too, a higher standard has been introduced by a change to the open-block type, with courtyards, gardens and playgrounds for the children. The municipal parks and the gardens open to the public cover an area of about 500 acres. In addition, there are the lakes lying within the city, which constitute a valuable supplement to the park areas. Further, a considerable number of parks are planned in the outskirts. It is the aim to provide as many resting places and playgrounds as possible. They are very highly frequented, especially in the interior quarters.

The environs afford also great possibilities for a fine comprehensive housing scheme, but it is evident that no central, harmonical and city-like development of Greater Copenhagen can be undertaken as long as the administration is parcelled out among so many hands.

Copenhagen: Development and Town Planning Conditions. Stadsingeniorens Direktorat Byplanafdelingen, 1930.

SOCIETIES AND INSTITUTIONS

WEST YORKSHIRE SOCIETY OF ARCHITECTS

"WHERE Are We Going?" was the title of a lecture delivered by Mr. H. S. Goodhart-Rendel, F.R.I.B.A., at a meeting of the above society. Mr. Norman Culley, F.R.I.B.A., presided.

The lecturer remarked that prophecy stood first among the dangerous trades, yet he did not shrink from foretelling what was likely to happen to architecture, and that was simply : what had happened to it before. Having arrived at what they thought was a new point, they forgot having been there before, and congratulated themselves upon an important advance.

The unvarying progresses of art had their own rhythm of shock and recoil. Folks who kept Lent rigorously were apt, after Easter, to spring back like a piece of elastic into greater indulgence than before. If the severity of present taste held out much longer there could be foreseen some amusing debauchery following upon it.

All fashions had their recurring phases. The feminine costume showed a definite, though still repressed, tendency to "billow." But no woman could billow in a drawing-room that looked like an operating theatre. One could not melt satisfactorily to the strains of Mendelssohn, seated in a chair made of large croquet hoops and indiarubber sheeting. Unless our modernist designers introduced a little fluff into the fabric of life, they would find themselves badly in the rear of the hasty retreat towards the well-padded dug-outs of the Victorian days.

Art was not exploration. There was no advantage in seeking new fields except where the old ones had become foul. What mattered most was, not who did a thing first, but who did it best. The ideas now put forward under the ugly name of "functionalism" were very old, but were now served up, flavoured with engineering.

The speaker thought that the next change would be toward "curliness," by which he meant ornament. The present asceticism could not last. It was the intolerable imposition of the few, not the free choice of the many. As far as living-rooms were concerned, one wanted to be something more than a mere blot upon a colour scheme. One wished to be a self-respecting person in enjoyable surroundings.

A just equilibrium between reason and fancy was the dream of the sanguine. At present there seemed no hope of such combination. Age and youth were at war. Our young architects were such fierce realists : our elder ones such whimsical romantics. If there existed an equilibrium, it was a deadlock between die-hards. One thing was certain : an architecture of reason alone could not subsist. Eliminate fancy, and one of architecture's choicest ingredients was lost.

Mr. G. H. Foggitt, F.R.I.B.A., in moving the vote of thanks, observed that the elder men had not been trained in the modern style, and so had only tradition to guide them. He agreed that there would be a rebound from functionalism when it had exhausted itself by the excesses into which it seemed to be drifting.

Mr. J. E. Stocks seconded the vote.

STOCKHOLM TOWN HALL

At a meeting of the Architectural Association, Mr. H. Austen Hall, F.R.I.B.A., read a paper on "The A.A. Excursion to Sweden and Denmark, 1930."

Mr. Hall said his first impression of the Stockholm Town Hall was one of complete harmony combined with endless invention in the diversity of its detail and the splendour of its decoration.

The treatment of the brickwork was unusual. The bricks themselves were very large and were not by any means what should be considered a good facing brick. But they were extensively chiselled on the surface by the use of pneumatic tools, a process described as "masonry," and Ragnar Ostberg, the

architect, recorded it as his opinion that a better effect was obtained by this means than if the bricks were purposely moulded.

The Town Hall of Stockholm was a great adventure in architecture, and one that was entirely successful. It was the essence of adventure that it might not be successful, but in this case we had the initial determination of all concerned that the best result alone would satisfy them, and to attain this result no hurried decisions were reached. The slowly ripening judgment of the architect was allowed to reach its matured conclusion. He was given complete control of everything, even to the smallest detail of equipment.

RENAISSANCE ARCHITECTURE

"Style and Fashion in Architecture" was the subject of a paper read by Mr. R. A. Duncan, A.R.I.B.A., to students at the Northern Polytechnic, Holloway, N.

Archæology, said Mr. Duncan, had proved that architecture and its attendant plastic and decorative arts provided a sure indication of the qualitative as well as the quantitative value of a civilization. The trained observer was able not merely to reconstruct a past social organization and economic system, but to deduce beliefs and compute moral worth even in the absence of any other evidence. Architecture responded with great sensitiveness to all those deep-rooted social impulses which were often but half understood at the time at which they occurred; the art represented a sort of reflex action.

If the whole range of development of an architecture was examined, a great number of variations and deviations from the main theme would be found, but it would also be apparent that the theme was not greatly affected by these vagaries. It would be noticed that some of them became merged into the line of development so as to be indistinguishable from it. The theme was called the style and the variations fashions.

The lecturer, who illustrated his remarks by many lantern slides, spoke of the Renaissance period and its connection with style and fashion. He continued by saying that Renaissance architecture was most vital in its early period before the complete domination of the individual architect was established in design. While the craft schools, a legacy of the Middle Ages, were still an important element in building activities, classical forms were used as so much design material. With the growth of more definite knowledge about the Classical World, and as it became more and more possible to apply that knowledge to an exact reproduction of a past manner of living, so it declined as the real source of inspiration. The knowledge did not then help the arts, the reason being that it was, humanly speaking, impossible to recapture a concept that had been superseded, still less an emotion based on it. The Renaissance was more susceptible to the fluctuations of fashion than any previous historical style, except, perhaps, that of Imperial Rome. The causes were the natural tendency of autocracy to dictate form and the unreasoned copying of a court entourage and the lesser gentry, and also, perhaps, even more (its opposite) the individualism of artists who acquired momentary vogue. England, by comparison with France, had far less continuity. There were striking fundamental dissimilarities between the work of Jones, Wren, Vanbrugh and Gibbs. There was a big window style and small window style—Palladian, Baroque. The travels of architects were less important in French development than they were to England, but the sum-total effect of developments which were the true growth of architectural style approximated to the same end in all European countries at the close of the Renaissance in spite of fluctuations of fashion. There was an underlying European style of which it was possible to see the evolution and which would sooner or later be the expression of the Atlantic culture as a whole. The breakdown of the Renaissance tradition occurred more or less simultaneously in all countries for the reason that they were bound by the same cultural bonds expressing themselves in similar economic systems and social institutions.

The most fundamental thing that was established at the Renaissance was the right of the individual to acquire knowledge for himself and freedom to choose the source.

HOUSING AND TOWN PLANNING CONFERENCE

At the National Housing and Town Planning Conference, held at Blackpool, a resolution was passed welcoming the promise of a Bill to extend town-planning powers, and to secure rural amenity.

Dr. Raymond Unwin, F.R.I.B.A., in addressing the conference, said it was essential for the welfare of the country that there should be legislation this year, in order to co-ordinate industrial and housing development, and so prevent the whole countryside from being ruined by haphazard and sporadic development, which was greatly encouraged by improved transport. It was also necessary that the areas to which the slum clearance people were to be removed should be planned in advance. Among the chief amendments to the Town Planning Act required, he suggested, were the following:

1: Power to be given for regional or joint town-planning authorities to prepare effective regional schemes, without prejudice to the rights of the individual local authorities to prepare supplementary schemes in greater detail for their respective areas. Where the schemes of the individual local authorities have been first prepared, the regional authorities to be entitled to prepare supplementary schemes dealing with the larger regional matters. 2: Power to be given for both joint regional and local town-planning schemes to include a provision enabling development or redevelopment schemes to be made for particular areas for the purpose of facilitating and controlling the more detailed layout and supplementary zoning of these areas, as they become ripe for development; or for the redevelopment on similar lines of decaying or badly planned areas. 3: Facilities to be given for such development or redevelopment schemes to be prepared by the regional or local authorities, or to be submitted by groups of owners controlling, say, not less than two-thirds of the area included, for approval and adoption by the planning authorities, subject in the usual way to the approval of the Ministry of Health. 4: Town planning powers, as above amended in regard to administration, to be extended to apply generally to all land whether likely to be used for building purposes or not. 5: The powers of zoning under town-planning schemes should be extended.

Mr. F. W. Platt said that in 100 years Manchester had spent £4,500,000 in street improvements, because she never had a town plan.

Sir Theodore Chambers, in presenting a memorandum prepared by the Garden Cities and Town Planning Association, discussed the most suitable organization to inaugurate and control such schemes as the formation of a statutory development board on the lines of the Central Electricity Board. He did not think either unassisted private enterprise or the normal machinery of the local authorities was adequate. It was at the same time essential that any organization set up should be closely linked to the local authorities, which were the recognized town-planning bodies. The most suitable body would be a "board" constituted somewhat on the lines of the Central Electricity Board or the London Traffic Board. It might be assured of the sympathetic assistance of the Ministries of Health, Transport, and Agriculture, and be given a status that would overcome many of the objections that might otherwise be raised, owing to the inevitable dangers

of large-scale freehold ownership unless suitably controlled.

Other memorandums were presented on "The Different Renting under the Housing Act, 1930"; "The Present Housing Situation in England and Wales"; and "The Housing Act, 1930: Improvement Areas and the Model Bylaws," by Mr. E. D. Simon, M.P., Mr. John G. Martin, and C. Kellick Millard, M.D., respectively.

ROMANESQUE ARCHITECTURE IN FRANCE

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts on Wednesday last, described the Romanesque Architecture in France.

There were, he remarked, few such buildings in France except those left by the Romans, and these largely influenced the main character of French architecture during the Romanesque period of the mediæval style.

THE CHARTERED SURVEYORS' INSTITUTION

By Order of His Majesty's Privy Council an application for permission to change the name of the Surveyors' Institution to "The Chartered Surveyors' Institution" has been approved.

REGISTER OF ARCHITECTS AND STUDENTS

The R.I.B.A. has drawn attention to the fact that at 9 Conduit Street, W.1, two registers are kept: (1) containing the names of advanced students of recognized schools, and (2) containing the names of architects willing to take such students.

The intention is in this way to assist advanced students up to the stage of the completion of their qualifications for exemption from the Final Examination; one of the qualifications for exemption from the Final Examination being twelve months' experience in an office during the fourth and fifth years of the school course.

The Council hope that general use will be made of the registers, and that as many architects as possible will send their names to be placed on the register.

ANNOUNCEMENTS

Mr. Arnold Inman, of 5 Paper Buildings, Temple, has been appointed by the Home Secretary as a member of the Tribunal of Appeal under the London Building Acts. Mr. Inman is a well-known member of the Western Circuit.

Mr. William Walter Wood, F.R.I.B.A., M.I.STRUCT.E., has temporarily transferred his Plymouth office to Oversound House, Down Thomas. Telephone Number: Plymstock 176Y. His London address remains 257 Oxford Street, W.1, but the Telephone Number has been changed to Mayfair 1071.

[For list of Competitions see last issue.]

THE ARCHITECTS' DIARY

WEDNESDAY, DECEMBER 3

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of photographs of buildings visited on the A.A. Excursion to Sweden and Denmark. Until December 20.

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Ordinary Meeting. "The Building of the Mansion House." By Sydney Perks, F.S.A., F.R.I.B.A., F.S.I. **8 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: The Gothic Period—The Cathedrals." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Second of three public lectures on "Stockholm and Its Environs." By A. M. Wijk. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. Sessional Meeting. "The Cost of Operating Industrial and Private Electric Generating Sets compared with Public Supply." By E. G. Phillips, M.I.E.E., A.M.I.MECH.E. **7 p.m.**

EXHIBITION OF MODELS OF OLD LONDON. At the Golden Cross Hotel, Strand, W.C.2. The models are the work of John B. Thorpe. **2.30 p.m.**

THURSDAY, DECEMBER 4

WEST YORKSHIRE SOCIETY OF ARCHITECTS. At the College of Art, Leeds. General Meeting. "Places of Entertainment." By W. Milburn (Jun.), B.SC., F.R.I.B.A., F.S.I. **7 p.m.**

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "Tudor Houses and Furniture." By C. H. B. Quennell, F.R.I.B.A. **7.30 p.m.**

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, S.W.7. Lecture Theatre. "Symbolism in Mediæval Art." By Dr. G. G. Coulton, F.B.A. **5.30 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Yates Lectures. Last of a course of eight public lectures on "Greek Myths and their Representation in Art." By Professor A. E. Gardner. (Lantern Illustrations.) **5 p.m.**

LONDON MASTER BUILDERS' ASSOCIATION. Annual Dinner to be held at the Connaught Rooms, Great Queen Street, W.C.2. **7 p.m.**

SOCIETY OF ANTIQUARIES, Burlington House, S.W.1. Ordinary Meeting. **8.30 p.m.**

FRIDAY, DECEMBER 5

INSTITUTION OF MECHANICAL ENGINEERS, Storey's Gate, Westminster, S.W.1. "Machinery and Methods of Manufacturing of Sheet Glass." By Professor W. E. S. Turner. **6 p.m.**

SATURDAY, DECEMBER 6

Sunrise, 7.49 a.m. Sunset, 3.52 p.m.

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. Annual Dinner and Dance, to be held at the Grand Hotel, Aytoun Street, Manchester.

MONDAY, DECEMBER 8

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Cantor Lecture III. "Modern Domestic Scientific Appliances: Miscellaneous Devices." By Professor Charles R. Darling, F.I.C., F.INST.P. **8 p.m.**

TUESDAY, DECEMBER 9

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. At Milton Hall, Deansgate, Manchester. Paper by P. G. Fairhurst, M.A., A.R.I.B.A. **7 p.m.**

WEDNESDAY, DECEMBER 10

CHARTERED SURVEYORS' INSTITUTION. Annual Dinner of the Quantity Surveyor Members, to be held at the Connaught Rooms, Great Queen Street, W.C.2. **7.30 p.m.**

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Ordinary Meeting. "Persian Textiles." By A. L. B. Ashton. **8.30 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Informal Meeting. "Atmospheric Pollution Due to Combustion of Fuel, and Methods of its Prevention." By John S. Owens, M.D., A.M.INST.C.E. Chairman: Sydney B. Donkin. **6 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: The Gothic Period—Rheims Cathedral." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Last of three public lectures on "Stockholm and Its Environs." By A. M. Wijk. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the College of Technology, Manchester. "Methods of Securing Masonry to Framed Buildings." By E. G. Warland, A.INST.S.E. **7 p.m.**

THURSDAY, DECEMBER 11

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS. At the University, Sheffield. "Maltese Architecture." By Professor L. P. Abercrombie, M.A., F.R.I.B.A. (Tea, 5.30 p.m.) **6.15 p.m.**

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "Old English Furniture and the Men Who Made It." By Ingleson C. Goodison. **7.30 p.m.**

THURSDAY, DECEMBER 11 (*continued*).

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "The Æsthetic Side of Structural and Constructional Engineering." By Howard Robertson, F.R.I.B.A. South Wales and Monmouthshire Branch. Visit to works of Braithwaite & Co. (Engineers), Ltd., Newport. **6.30 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. Dundee Sub-Centre. At the University College, Dundee. "Electricity and Mining—A Story of Progress." By A. V. Reis. **7.30 p.m.**

FRIDAY, DECEMBER 12

FACULTY OF ARCHITECTS AND SURVEYORS. Fourth Annual Dinner to be held at the Hotel Metropole, Northumberland Avenue, W.C. 6.45 for 7.15 p.m. **6.45 p.m.**

ILLUMINATING ENGINEERING SOCIETY. Visit to the Chiswick Works of the London General Omnibus Co., Ltd., at 4 p.m. A meeting will be held in the Lecture Theatre of Holophane, Ltd., Elverton Street, Westminster, S.W.1, at 6.30 p.m., when a paper on "Glasses for Use with Invisible (Ultra-violet and Infra-ray) Rays," illustrated by demonstrations, will be read by Dr. S. English. **4 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Western Counties Branch. At the Merchant Venturers' Technical College, Unity Street, Bristol. "A Comparative Study of Retaining Walls." By E. S. Andrews, B.SC., M.INST.C.E. 7.30 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. Discussion on: "Some Problems in the Design of Roof Members," to be opened by A. C. Ansell, B.SC. 7 p.m. **7 p.m.**

BOROUGH POLYTECHNIC, Borough Road, Southwark, S.E.1. Exhibition of Students' Work. 6 to 9 p.m. (Saturday, December 13. 2 to 9 p.m.). **6 p.m.**

SATURDAY, DECEMBER 13

Sunrise, 7.57 a.m. Sunset, 3.51 p.m.

INSTITUTION OF ELECTRICAL ENGINEERS. North-Eastern Centre. At the Armstrong College, Newcastle-on-Tyne. Informal Discussion on "Heating in the Home." **7 p.m.**

MONDAY, DECEMBER 15

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Pantomime (until December 18 inclusive).

WEDNESDAY, DECEMBER 17

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: Fortified Towns, Castles, Hotels-de-Ville." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

THURSDAY, DECEMBER 18

INSTITUTION OF ELECTRICAL ENGINEERS. Teesside Sub-Centre. At the Cleveland Technical Institute, Middlesbrough. "Surge Investigations on Overhead Line and Cable Systems." By S. W. Melsom, A. N. Arman, B.SC. (ENG.), and W. Bibby, B.SC. (ENG.). **7 p.m.**

SATURDAY, DECEMBER 20

Sunrise, 8.2 a.m. Sunset, 3.53 p.m.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. Visit to Partington Gas Works.

SATURDAY, DECEMBER 27

Sunrise, 8.5 a.m. Sunset, 3.57 p.m.

WEDNESDAY, JANUARY 7, 1931

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the Engineers' Club, Albert Square, Manchester. Paper by J. Theo. Halliday, F.R.I.B.A. **7 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. "Notes on the Theory of Radiant Heating." By C. G. Heys Hallett, M.A. **7 p.m.**

THURSDAY, JANUARY 8

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS. At the University, Sheffield. "Some New Buildings in Sweden and the Stockholm Exhibition." By E. R. Jarrett, A.R.I.B.A. (Tea, 5.30 p.m.) **6.15 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "Thames House." By R. Travers Morgan, A.M.INST.C.E. **6.30 p.m.**

FRIDAY, JANUARY 9

INSTITUTION OF STRUCTURAL ENGINEERS. Annual Dinner to be held at the Mayfair Hotel, W.1. 6.45 for 7.15 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Some Considerations Affecting the Construction and Reconstruction of Bridges in Urban Areas." By E. R. Knight, A.M.INST.C.E. 6.30 p.m. **6.30 p.m.**

MONDAY, JANUARY 12

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "Modern Painters." By R. Wilenski. 8 p.m. Exhibition of Examples of Modern Painting. Until January 24. **8 p.m.**

TUESDAY, JANUARY 13

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. London and District Branch. At the Borough Polytechnic, Borough Road, Southwark, S.E.1. "Concealed Floor Heating." By John H. Francis. 7 p.m. Manchester and District Branch. At the Milton Hall, Deansgate, Manchester. "Hot-Water Heating." By R. Thorp. **7 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. North Midland Centre. At the Hotel Metropole, King Street, Leeds. "Surge Investigations on Overhead Line and Cable Systems." By S. W. Melsom, A. N. Arman, B.SC. (ENG.), and W. Bibby, B.S. (ENG.). **7 p.m.**

OBITUARY

HAROLD BAILEY

WE regret to record the death of Mr. Harold Bailey, F.R.I.B.A., of Malden.

Mr. Bailey, who was 68 years of age, was an authority upon town planning, estate development and the design of golf courses; he was responsible for the layout of the Malden Golf Links and the design of the club house, as well as the Coombe Hill Golf Club house.

He was first elected to Malden Council in 1906, and retained his seat until his retirement in 1921.

JOSEPH C. MAXWELL

Mr. Joseph Charlton Maxwell, F.R.I.B.A., a partner in the firm of Messrs. Stienlet and Maxwell, architects, of Newcastle, died recently, after a short illness.

Mr. William Henry Shepstone, of Nailsea, Somerset, architect, left £3,084 (net personalty £214).

LAW REPORT

RIGHT TO DAMAGES FOR DELAY FROM SUB-CONTRACTOR

Dawnay and Sons, Ltd. v. *Holloway Bros. Court of Appeal. Before Lords Justices Scrutton, Greer and Slesser*

THIS was an appeal by the defendants, Holloway Bros., of The Wharf, Grosvenor Road, Westminster, S.W., from the judgment of Mr. Justice Branson in the King's Bench Division in favour of the plaintiffs, Messrs. Archibald D. Dawnay and Sons, Ltd., of Steelworks Road, Battersea, on a preliminary issue in the action.

The action was brought by Messrs. Dawnay and Sons to recover a sum of £2,000 they alleged to be due from the defendants under a contract of August, 1928, for work and labour done.

The defendants were the main builders and contractors to build the Masonic Peace Memorial in Great Queen Street, and they employed the plaintiffs, Messrs. Dawnay and Sons, as sub-contractors for a great deal of the iron work. There was a provision in the sub-contract under which the plaintiffs were liable for certain liquidated damages for delay, and there was a corresponding penalty exacted under the head contract with the building-owners. There was some delay on both sides, but in the events which had happened, the defendants, under the head contract, had not been compelled to pay any damages, the architect having extended their time. The defendants by their defence to the plaintiffs' action admitted that the amount sued for was due, but said that as the plaintiffs had failed to carry out the contract in the stipulated time the sum of £2,000 was due to them from the plaintiffs by way of liquidated damages and for this amount they counter-claimed. In answer to the counter-claim the plaintiffs contended that as the defendants had not in the circumstances had to pay any penalty to their building-owners, that put an end to the question of damages so far as the plaintiffs were concerned. The question whether that was so or not was the preliminary issue now before the Court for trial.

Mr. Justice Branson decided the point in favour of the plaintiffs, holding that the damages could only be recovered from the plaintiffs if the penalty was exacted under the agreement between the defendants and the building-owners. As the penalty had not been exacted the preliminary point, he said, must be decided in favour of the plaintiffs, Messrs. Dawnay and Sons. From this result Messrs. Holloway Brothers now appealed.

At the conclusion of the arguments the Lords Justices held that Mr. Justice Branson had come to a proper conclusion and dismissed the appeal.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors, specialists and sub-contractors for the buildings illustrated in this issue :

Adelphi Theatre, Strand, W.C.2 (pages 824, 828–830). General contractors, Pitcher Construction Co., Ltd. Sub-contractors : Lalique (Breves, Ltd.), decorative lighting effects ; Strand Electric and Engineering Co., Ltd., lighting installation and stage equipment ; Lift and Engineering, Ltd., revolving stage; Theatre Equipment, Ltd., seating; Clark and Fenn, Ltd., fibrous plaster; Hall and Dixon, Ltd., tapestry and decoration; Sinnott, and Marshall & Co., sanitary fittings; E. B. Bain & Co., ventilating and plenum; John Stubbs and Sons, marble; T. F. Firth and Sons, Ltd., carpets; Merryweather and Sons, Ltd., safety curtain and fire protection; Morris Singer, Ltd., Oram handrail; Golding and Truelove, metalwork; Hitchins Laminated Wood Products, Ltd., woodwork; Rheocrete Pumice Stone Slab Co., Ltd., partitions; R. Fox and Sons, spray bronzing; New Systems Private Telephones (London), Ltd., " Princeps " electric clock; St. Mary's Wharf and Cartage Co., Ltd., demolitions.

Alderley Edge Festival Hall (pages 831–836). General contractors, I. Massey and Sons. Sub-contractors : James Bennett and Son, steel roof principals and steel frame and gearing of movable floor; Henry Hope and Sons, steel window; Christie Patent Stone Co., artificial stone; Risboro Furniture, Ltd., seating; Morrison, Ingram & Co., sanitary fittings; Frank Wood & Co., electric lighting; Hindshaw & Co., fibrous plaster; Geo. Wragge & Co., marquise; Saunders and Taylor, heating and ventilating; Hollis Bros. & Co., Ltd., wood-block flooring; G. Broadbent, curtains, etc.

FACULTY OF ARCHITECTS AND SURVEYORS

On Saturday, November 21, about fifty members of the Faculty of Architects and Surveyors visited the brick-making works of Messrs. Vimax Machinery Co., Ltd., Nutfield Road, Merstham, Surrey. The party left Westminster, by saloon coach, for Croydon, where the visitors broke the journey for luncheon at the Red Lion Hotel, at the invitation of the directors of the company. On arrival at the works the visitors were given the opportunity of touring the works either with the guides or otherwise. The writer took the former course. In the first instance the party were shown the automatic " Vimax " brick-making machine in operation. This machine, it is claimed, has a normal output of 2,400 bricks per hour. Here, after the correct proportions of sand and cement had been fed to the mixing chamber adjoining, and sufficient water added, the bulk material, in a semi-dry state, was charged to the moulds in predetermined quantities, each brick being mechanically consolidated under pressure of about 1½ to 2 tons. After pressing, the bricks were delivered to the platoons, which are carried on the machine by a roller conveyor; they were then placed in specially designed crates and removed to the setting sheds. The bricks are standard size, but, on changing the moulds, they may be varied, within limits, to various sizes.

Then on to the sand-pits—covered by thirty feet of water—where the sand, comprised of practically pure silica, is sucked up by means of a pontoon pump and deposited into bins. It is then conveyed to the mixing shed, where the cement and colouring content is added; thence delivered to the machine. Although when inspecting the sand, it was raining hard, the visitors were not in the least dismayed and showed extreme interest by plying the guides, Commander Gibson and Messrs. C. and G. MacKenzie, with many questions. The writer asked how long the supply of sand would last, and he was informed that it would be anything from twenty to thirty years. The shed where the finished bricks are stored was next visited : bricks of many different hues meet the demand for brilliant colours, which is the keynote of modern decoration. Commander Gibson stated that one could have any coloured bricks, even yellow with green spots ! Lastly, a workman demonstrated how the bricks could be cut to any shape or size by means of a trowel.

In conclusion, the following paragraph may be quoted from the firm's booklet : " The walls of houses built of ' Vimax ' bricks have shown no penetration of moisture under the severest weather tests; the bricks ' breathe,' that is to say, they have the same facility to absorb moisture as good clay bricks, and do not encourage condensation on the surfaces of inner walls."

K.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

The Middlesex County Education Committee has approved of the proposal of the Brentford and Chiswick D.C. to provide a new elementary school for 250 infants on a site in Boston Road, BRENTFORD, at a cost of £8,825.

The Accommodation Sub-committee of the London Education Committee recently recommended that public notices be issued of the Council's intention to provide new elementary schools at BRIXTON for 1,300 children; at CLAPHAM PARK for 500 children; and at STREATHAM HILL for 400 children.

The Surrey Education Committee is to proceed with the erection of an elementary school on the Brickfields site, CHEAM.

A scheme for converting the Grand Music Hall, CLAPHAM, S.W., into a cinema is to be proceeded with.

The L.C.C. has informed the Lewisham Council that the Minister of Transport is prepared to make a grant towards the cost of rebuilding the Ladywell Bridge, LEWISHAM, S.E., which is estimated at £61,000.

The designs of Messrs. Swan, Norman and Clay have been adopted for an extension of the Darrell Road school, RICHMOND.

Plans passed by the SLOUGH U.D.C.: Eighteen shops with flats over, Bath Road, Cippenham, for Mr. W. Varney; fifteen houses and shops, Uxbridge Road, for Mr. C. W. Burcher (subject to combined drainage agreement); two shops with flats over, Farnham Avenue, and two shops with flats over, Woodland Avenue, for Mr. W. Warren; eight houses, Furnival Avenue, for Messrs. Smart and Fretwell; seven houses, Carlisle Road, for Mr. A. F. Williams (subject to combined drainage agreement); two houses off Woodland Avenue, for Mr. A. F. Williams (subject to combined drainage agreement); two houses, Farnham Road, for Messrs. W. Stevens and Sons; house, Leeds Road West, for Mr. A. F. Williams; house and garage, Farnham Avenue, for Mr. A. H. Hillier; bakehouse, Bath Road, Cippenham, for Mr. Cork.

The cost of building thirty-six flats in Garratt Lane, STREATHAM, is estimated at £21,205, and the fifty-one flats to be built in Fountain Road, TOOTING, will cost £33,452.

The enlargement of the THORNTON HEATH Baths is to cost £34,400.

The WEST HAM T.C. has received sanction from the Electricity Commissioners to borrow sums amounting to £63,840 for rental wiring scheme, building work and provision of sub-stations.

EASTERN COUNTIES

We are informed that the site of the Post Office, DOWNHAM, Norfolk, has been sold for the erection of a cinema and dance hall. Messrs. J. Laurie Earnell and W. Dymoke White are the architects.

The SCUNTHORPE U.D.C. is to purchase approximately forty-two acres of land from Sir Berkeley Sheffield, Bt., for extension of the Council's housing estate. The estimated cost is £1,440.

The SOUTHEND Council has approved the purchase of a site of 18½ acres of land for the Boys' High School, Southend. The land is part of the Earl's Hall estate, Prittlewell.

SOUTHERN COUNTIES

Plans have been prepared by Henry G. Baker, for a new kinema to be erected on a site in Ockford Road, GODALMING, for County Cinemas, Ltd. The new theatre will have seating accommodation for 1,500 persons.

After a delay of nearly a year, the HOVE Education Committee has decided on the erection of a new school on the Knoll housing estate. The portions of the school to be proceeded with will be of one story, and will consist of a central entrance block, two halls, twelve class-rooms, and a combined woodwork and metalwork centre. There will be accommodation for 568 children, and the cost will be £21,317.

SOUTH-WESTERN COUNTIES

The Black and White Coaching Co. has given instructions for the preparation of plans for a coaching station, to be erected on a site of three acres of land at CHELTENHAM.

Plans passed by the HURSLEY R.D.C.: House, Northend Road, Chandler's Ford, for Mr. D. W. Birch; alterations to bungalow, Ford Avenue, Chandler's Ford, for Mr. C. E. Ford; house, Winchester Road, Chandler's Ford, for Messrs. Jackson Bros.; pair of semi-detached houses, Ford Avenue, Chandler's Ford, for Mr. F. C. Baker; bungalow, Park Road, Allbrook, for Mr. Rickman.

MIDLAND COUNTIES

Mr. W. E. Sanders Salt is to apply at the December Sessions of the Public Entertainments Committee for approval for the erection of a kinema on the Beeches estate, Yardley Road, ACOCK'S GREEN.

The HINCKLEY R.D.C. has decided to purchase 6·4 acres of land on the Gravel Pit Farm at Barwell, as a site for the erection of further working-class dwellings, at an agreed price of 2s. 6d. a square yard net.

The Ministry of Health have sanctioned HINCKLEY R.D.C.'s proposal to erect 118 more houses of the non-parlour type, and these will be allocated to the various parishes as follows: Burbage, thirty houses; Sharnford, six; Sapcote, twelve; Golding, eight; Earl Shilton, fifty; Stoney Stanton, twelve.

The LEICESTER Corporation is recommended to build 150 houses on the Braunstone estate, at a cost of £63,915.

NORTHERN COUNTIES

The directors of the King's Theatre, Waterfoot, have acquired the whole of the land and buildings of the Kozy Cinema, Burnley Road, BACUP, on which they propose to erect a new super-cinema. Local architects were recently asked to submit designs in a limited competition. The designs are now being considered.

The Palace Theatre, BARROW, was closed recently in preparation for reconstruction work, at a cost of £10,000. The interior will be gutted and rebuilt with seating accommodation for 1,300 people. There will be a new front entrance, with also an entrance in Forshaw Street. It is hoped to reopen in three months' time.

Messrs. Cowe and Lawson are preparing plans for a new cinema to be erected at ESTON, near Middlesbrough.

The LIVERPOOL City Council recently debated the housing problem as it concerns overcrowding in the north end of the city, and has decided to purchase a site near the Bootle boundary, at a cost of £20,000, for the erection of 200 tenement dwellings.

Inquiries are being made of NEWCASTLE Municipal Housing Committee, regarding the possibility of the committee selling or leasing a site on the Cowgate estate, for the purposes of a kinema. The committee is to give further consideration to the proposal before announcing its final decision.

Representatives of the Corporations of SOUTH SHIELDS and TYNEMOUTH, meeting in private at South Shields, decided to recommend the construction of a tunnel under the Tyne between North and South Shields, at an estimated cost of £1,240,000. A deputation was appointed, comprising members of the two Corporations, to ask the Minister of Transport to make a grant of 90 per cent. towards the cost of the scheme. The remaining 10 per cent. would be borne by the two boroughs.

Plans for the cinema to be erected for J. H. Stansfield at St. Petersgate, STOCKPORT, are to be submitted to the authorities for approval at an early date. The architect is John Knight, F.R.I.B.A., and the cost £27,000.

The SUNDERLAND Corporation has under consideration a scheme for transforming Roker and Seaburn into what is hoped to be one of the finest seaside resorts in the country. Included in the general scheme are plans for the erection of a super-cinema near the sea front, as well as hotels, shops, cafés and boarding-houses.

SCOTLAND

At a meeting of the Public Health Committee of the ABERDEEN County Council it was decided that the building of workmen's houses, in various districts, under the Housing Acts, should be proceeded with as follows: Bridge of Don, twenty houses; Aboyne, six; Lumphanan, four; Torphins, six; Old Deer, four.

The CAMPBELTOWN T.C. has adopted a scheme, the plan for which has been prepared by Mr. Brodie, for the widening of Askomil Walk so as to form a promenade. The total cost is estimated at £56,000.

Among petitions granted at a sitting of the EDINBURGH Dean of Guild Court were the following: Four bungalows, Strachan Road, Blackhall, for C. H. Dunlop; house, Castle Avenue, Corstorphine, for Mr. P. Macdonald; two bungalows and two garages, Observatory Road, Blackford Hill, for Mr. W. Patterson; additions, Leith Nautical College; two cottages and two garages, Milton Road, Portobello, for Mr. J. Macdonald.

In connection with the slum-clearance scheme of the FELLING Council, the architect has submitted plans of the various types of houses needed to re-house the displaced tenants. A detailed statement is to be prepared, showing how an economic rent can be worked out, on a suggested basis of 100 houses.

A site at Netherlee Road, Linn Park, GLASGOW, has been acquired by Messrs. Mactaggart and Mickel, Ltd., for the erection of fifty three- and four- apartment bungalows, which will be ready for occupancy by May.

The Department of Health has agreed to the proposal of KILSYTH T.C. to proceed with a further housing scheme, comprising the erection of eighty-eight houses.

The NORTH BERWICK T.C. has decided to acquire more ground for another housing scheme.

The RENFREW T.C. has approved of the Housing Committee's recommendation to erect sixty-four houses in Renfield Street and Fulbar Lane, and thirty-two houses in Ferguson Street, but awaits the approval of the Ministry of Health.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to October 31, 1930: 1919 Act, by local authorities, 25,129: 1919 Act, by public utility societies, 421; private subsidy schemes (1919 Additional Powers Act), 2,324; slum-clearance schemes, 12,175; under construction, 2,130: 1923 Act, by local authorities, 4,033: 1923 Act, by private enterprise, 18,879; under construction, 945: 1923 Act, by public utility societies, 80: 1924 Act, by local authorities, 46,405; under construction, 6,051: 1924 Act, by private enterprise, 2,931; under construction, 57: 1924 Act, by public utility societies, 127; under construction, 16: 1930 Act, by local authorities, under construction, 58; demonstration houses, 17; steel houses erected on behalf of Government by Scottish National Housing Company, 2,552. Total houses completed, 115,073; total under construction, 9,257. Total, 124,330.

WALES

Plans passed by the CONWAY T.C.: Three houses, Deganwy Road, for Mr. A. North; house, Victoria Drive, for Mr. R. Wynne, Clifton Road, Llandudno; two houses, Albert Drive, Deganwy, for Mr. Haxby; two villas, Warren Drive, Deganwy, for Mr. H. Sidebotham; two semi-detached bungalows, Deganwy Road, for Mr. J. Grundy.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2¼
A_3	Addlestone	S. Counties	1 5½	1 1
A	Adlington ..	N.W. Counties	1 7	1 2¼
A	Airdrie ..	Scotland	*1 7	1 2¼
C	Aldeburgh ..	E. Counties	1 3	11¼
A	Altrincham	N.W. Counties	1 7	1 2¼
B_3	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2¼
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_3	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2¼
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2¼
A	Barry ..	S. Wales & M.	1 7	1 2¼
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2¼
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_3	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2¼
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn ..	N.W.Counties	1 7	1 2¼
A	Blackpool ..	N.W. Counties	1 7	1 2¼
A	Blyth ..	N.E. Coast	1 7	1 2¼
B_3	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2¼
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2¼
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2¼
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2¼
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2¼
B_3	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11¼
A	Burnley ..	N.W. Counties	1 7	1 2¼
A	Burslem ..	Mid. Counties	1 7	1 2¼
A	Burton-on-Trent	Mid. Counties	1 7	1 2¼
A	Bury ..	N.W. Counties	1 7	1 2¼
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_3	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2¼
A	Carlisle ..	N.W. Counties	1 7	1 2¼
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon ..	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2¼
A	Castleford ..	Yorkshire	1 7	1 2¼
B_1	Chatham ..	S. Counties	1 4½	1 0½
B_1	Chelmsford	E. Counties	1 4½	1 0½
A_3	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2¼
A	Chesterfield	Mid. Counties	1 7	1 2¼
B_3	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2¼
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2¼
A	Clydebank ..	Scotland	1 7	1 2¼
A	Coalville ..	Mid. Counties	1 7	1 2¼
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2¼
A_3	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_3	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2¼
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2¼
A	Darwen ..	N.W. Counties	1 7	1 2¼
B_2	Deal ..	S. Counties	1 4	1 0
A_3	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2¼
A	Dewsbury ..	Yorkshire	1 7	1 2¼
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster ..	Yorkshire	1 7	1 2¼
B_3	Dorchester	S.W. Counties	1 3½	11½
A_3	Driffield ..	Yorks	1 5½	1 1
A_3	Droitwich ..	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2¼
A	Dundee ..	Scotland	1 7	1 2¼
A_1	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_3	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2¼
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham ..	N.W. Counties	1 7	1 2¼
B_3	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2¼
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester ..	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_3	Gosport ..	S. Counties	1 5½	1 1
A_3	Grantham ..	Mid. Counties	1 5½	1 1
A_1	Gravesend ..	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2¼
A	Grimsby ..	Yorkshire	1 7	1 2¼
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2¼
A	Hanley ..	Mid. Counties	1 7	1 2¼
A	Harrogate ..	Yorkshire	1 7	1 2¼
A	Hartlepools	N.E. Coast	1 7	1 2¼
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_3	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2¼
A	Hull ..	Yorkshire	1 7	1 2¼
A	ILKLEY ..	Yorkshire	1 7	1 2¼
A	Immingham	Mid. Counties	1 7	1 2¼
A_3	Ipswich ..	E. Counties	1 5½	1 1
B_3	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2¼
A	KEIGHLEY	Yorkshire	1 7	1 2¼
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_3	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2¼
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2¼
A	Leek ..	Mid. Counties	1 7	1 2¼
A	Leicester ..	Mid. Counties	1 7	1 2¼
A	Leigh ..	N.W. Counties	1 7	1 2¼
B_2	Lewes ..	S. Counties	1 3½	11½
A_3	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2¼
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_3	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2¼
	London (12-miles radius)		1 8½	1 3½
	Do. (12–15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2¼
A	Loughborough	Mid. Counties	1 7	1 2¼
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2¼
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone ..	S. Counties	1 4½	1 0½
A_3	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2¼
A	Mansfield ..	Mid. Counties	1 7	1 2¼
B_2	Margate ..	S. Counties	1 4	1 0
A_3	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2¼
A_1	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2¼
A	Morecambe	N.W. Counties	1 7	1 2¼
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2¼
A	Nelson ..	N.W. Counties	1 7	1 2¼
A	Newcastle ..	N.E. Coast	1 7	1 2¼
A	Newport ..	S. Wales & M.	1 7	1 2¼
A	Normanton	Yorkshire	1 7	1 2¼
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2¼
A	North Shields	N.E. Coast	1 7	1 2¼
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2¼
A	Nuneaton ..	Mid. Counties	1 7	1 2¼
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2¼
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2¼
B_3	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2¼
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2¼
A	Pontefract	Yorkshire	1 7	1 2¼
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_3	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2¼
A	QUEENSFERRY	N.W. Counties	1 7	1 2¼
A_3	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_3	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_3	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2¼
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2¼
A_3	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2¼
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2¼
B_3	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2¼
A	Sheffield ..	Yorkshire	1 7	1 2¼
A	Shipley ..	Yorkshire	1 7	1 2¼
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_3	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2¼
A	S. Shields ..	N.E. Coast	1 7	1 2¼
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2¼
A	Stockton-on-Tees	N.E. Coast	1 7	1 2¼
A	Stoke-on-Trent	Mid. Counties	1 7	1 2¼
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2¼
A	Swadlincote	Mid. Counties	1 7	1 2¼
A	Swansea ..	S. Wales & M.	1 7	1 2¼
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2¼
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2¼
A	Torquay ..	S.W. Counties	1 7	1 2¼
C	Truro ..	S.W. Counties	1 3	11¼
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall	Mid. Counties	1 7	1 2¼
A	Tyne District	N.E. Coast	1 7	1 2¼
A	WAKEFIELD	Yorkshire	1 7	1 2¼
A	Walsall ..	Mid. Counties	1 7	1 2¼
A	Warrington	N.W. Counties	1 7	1 2¼
A_3	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2¼
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2¼
A	Wigan ..	N.W. Counties	1 7	1 2¼
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2¼
A_2	Worcester	Mid. Counties	1 6	1 1½
A_3	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 3½*d. per hour;* LABOURER, 1*s.* 3½*d. per hour ;* NAVVY, 1*s.* 3½*d. per hour ;* TIMBERMAN, 1*s.* 5*d. per hour ;* SCAFFOLDER, 1*s.* 4½*d. per hour ;* WATCHMAN, 7*s.* 6*d. per shift.*

Broken brick or stone, 2 in., per yd.	
Thames ballast, per yd.	0 10 0
Pit gravel, per yd.	0 15 0
Pit sand, per yd.	0 12 6
Washed sand, per yd.	0 13 0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2 8 0
Lias lime, per ton	2 0 0

Sacks charged extra at 1*s.* 9*d. each and credited when returned at* 1*s.* 6*d.*

Transport hire per day :

Cart and horse	£1	3	0	*Trailer*	£0 15 0
3-ton motor lorry	3	15	0	*Steam roller*	4 5 0
Steam lorry, 5-ton	4	0	0	*Water cart*	1 5 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.
RETURN, fill, and ram, ordinary earth, per yd. £0 1 6
SPREAD and level, including wheeling, per yd. 0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6
TRIMMING earth to slopes, per yd. sup. 0 0 6
HACKING up old grano. or similar paving, per yd. sup. 0 1 3
PLANKING to excavations, per ft. sup. 0 0 5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.
IF left in, add to above prices, per ft. cube 0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1
DO. 6 in. thick, per yd. sup. 0 2 10
PUDDLING, per yd. cube 1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6
DO. 6-2-1, per yd. cube 1 12 6
DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.
LIAS-LIME CONCRETE, per yd. cube . £1 14 0
BREEZE CONCRETE, per yd. cube 1 7 0
DO. in lintels, etc., per ft. cube 0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9
FINE concrete benching to bottom of manholes, per ft. cube 0 3 0
FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1*s.* 3½*d. per hour ;* TIMBERMAN, 1*s.* 5*d. per hour ;* BRICKLAYER, 1*s.* 8½*d. per hour ;* PLUMBER, 1*s.* 8½*d. per hour ;* WATCHMAN, 7*s.* 6*d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0 0 10
DO. 6 *in., per ft.*	0 1 3
DO. 9 *in., per ft.*	0 2 3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 5 6
DO. 6 *in., per yd.*	0 8 0
Portland cement and sand, see " Excavator " above.	
Leadwool, per cwt.	£2 0 0
Gaskin, per lb.	0 0 4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1*s.* 8½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

London stocks, per M.	£4 5 6
Flettons, per M.	2 12 6
Midhurst white facing bricks, per M.	5 0 0
Multi-coloured facings, per M.	7 7 9
Best red facings, per M.	7 7 9
Rubbers, 9½ in., per M.	12 0 6
Staffordshire blue, per M.	9 5 0
Firebricks, 2½ in., per M.	9 5 0
Glazed sall, white, and ivory stretchers, per M.	21 10 0
DO. *headers, per M.*	20 10 0
Colours, extra, per M.	5 10 0
Seconds, less, per M.	1 0 0

Cement and sand, see " Excavator " above.

Lime, grey stone, per ton	£2 11 6
Mixed lime mortar, per yd.	1 6 0
Dampcourse, in rolls of 4½ in., per roll	0 2 6
DO. 9 *in., per roll*	0 4 9
DO. 14 *in., per roll*	0 7 6
DO. 18 *in., per roll*	0 9 6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30 0 0
DO. in cement do., per rod	32 10 0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup. £0 1 0
BEDDING plates in cement mortar, per ft. run 0 0 3
BEDDING window or door frames, per ft. run 0 0 3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run 0 0 2
CUTTING do. in old walls in cement, per ft. run 0 0 4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup. 0 0 7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run 0 3 6
DO. 14 ft. by 9 in. do., per ft. run 0 6 0
FLAUNCHING chimney pots, each 0 2 0
CUTTING and pinning ends of timbers, etc., in cement 0 1 0
FACINGS, fair, per ft. sup. extra 0 0 3
DO. picked stocks, per ft. sup. extra 0 0 7
DO. red rubbers, gauged and set in putty, per ft. sup. extra 0 4 9
DO. in salt white or ivory glazed, per ft. sup. extra 0 5 6
TUCK pointing, per ft. sup. extra 0 0 10
WEATHER pointing, do. do. 0 0 3
TILE creasing with cement fillet each side, per ft. run 0 0 6
GRANOLITHIC PAVING, 1 in., per yd. sup. 0 5 0
DO. 1½ in., per yd. sup. 0 6 0
DO. 2 in., per yd. sup. 0 7 0
If coloured with red oxide, per yd. sup. 0 1 0
If finished with carborundum, per yd. sup. 0 0 6
If in small quantities, in finishing to steps, etc., per ft. sup. 0 1 4
Jointing new grano. paving to old, per ft. run 0 0 4
Extra for dishing grano. or cement paving around gullies, each 0 1 6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup. 0 0 7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup. 0 8 0
DO. vertical, per yd. sup. 0 11 0
SLATE DAMP COURSE, per ft. sup. 0 0 10
ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd. 0 8 6
DO. SKIRTING, 6 in. 0 0 11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. 0 5 3
DO. DO. 3 in. 0 6 6
BREEZE fixing bricks, extra for each 0 0 3

MASON

MASON, 1*s.* 8½*d. per hour ;* DO. *fixer,* 1*s.* 9½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* SCAFFOLDER, 1*s.* 4½*d. per hour.*

Portland Stone :	
Whitbed, per ft. cube	£0 4 6
Basebed, per ft. cube	0 4 9
Bath stone, per ft. cube	0 3 0
Usual trade extras for large blocks.	
York paving, av. 2½ in., per yd. super	0 11 0
York templates, sawn, per ft. cube	0 7 6
Slate shelves, rubbed, 1 in., per ft. sup.	0 2 6
Cement and sand, see " Excavator," etc., above.	

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.
PLAIN face Portland basis, per ft. sup. £0 2 8
DO. circular, per ft. sup. 0 4 0
SUNK FACE, per ft. sup. 0 3 9
DO. circular, per ft. sup. 0 4 10
JOINTS, arch, per ft. sup. 0 2 6
DO. sunk, per ft. sup. 0 2 7
DO. DO. circular, per ft. sup. 0 4 6
CIRCULAR-CIRCULAR work, per ft. sup. 1 2 0
PLAIN MOULDING, straight, per inch of girth, per ft. run 0 1 1
DO. circular, do., per ft. run 0 1 4
HALF SAWING, per ft. sup. 0 1 0
Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.
SETTING 1 in. slate shelving in cement, per ft. sup. £0 0 6
RUBBED round nosing to do., per ft. lin. £0 0 6
YORK STEPS, rubbed T. & R., ft. cub. fixed 1 7 6
YORK SILLS, W. & T., ft. cub. fixed . 1 10 0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup. 0 1 3
DO. 2½ in. thick, per ft. sup. 0 1 6

SLATER AND TILER

SLATER 1*s.* 8½*d. per hour ;* TILER, 1*s.* 8½*d. per hour ;* SCAFFOLDER, 1*s.* 4½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200 :

Portmadoc Ladies			£14 0 0
Countess			23 0 0
Duchess			32 10 0
Old Delabole	*Med. Grey*		*Med. Green*
24 in. × 12 in.	£42 11 3		£45 1 0
20 in. × 10 in.	31 4 3		33 0 6
16 in. × 10 in.	20 18 0		22 4 9
14 in. × 8 in.	12 1 0		12 16 3
Green Randoms, per ton			8 3 9
Grey-green do., per ton			7 3 9
Green peggies, 12 in. to 8 in. long, per ton			5 13 9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0 0 6
Clips, copper, per lb.	0 2 0
Nails, compo, per cwt.	1 6 0
Nails, copper, per lb.	0 2 2
Cement and sand, see " Excavator," etc., above.	
Hand-made tiles, per M.	£5 18 0
Machine-made tiles, per M.	5 8 0
Westmorland slates, large, per ton	9 0 0
DO. *Peggies, per ton*	7 5 0

SLATING, 3 in. lap, compo nails, Portmadoc or equal :

Ladies, per square	£4 0 0
Countess, per square	4 5 0
Duchess, per square	4 10 0

WESTMORLAND, in diminishing courses, per square 6 5 0
CORNISH DO., per square 6 3 0
Add, if vertical, per square approx. 0 13 0
Add, if with copper nails, per square approx. 0 2 6
Double course at eaves, per ft. approx. 0 1 0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms		6 7 0
Grey-green do.		5 9 0
Green peggies, 12 in. to 8 in. long		4 13 6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square 3 17 6
DO., machine-made do., per square . 3 7 6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.
FIXING lead soakers, per dozen . £0 0 10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square . 0 10 0
LABOUR only in laying slates, but including nails, per square . 1 0 0
See " Sundries " for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1*s.* 8½*d. per hour ;* JOINER, 1*s.* 8½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds) :

7 × 3, per std.	£22 0 0
11 × 4, per std.	30 0 0
Memel or Equal. Slightly less than foregoing.	
Flooring, P.E., 1 in., per sq.	£1 4 6
DO., *T. and G., 1 in., per sq.*	1 4 6
Planed boards, 1 in. × 11 in., per std.	30 0 0
Wainscot oak, per ft. sup. of 1 in.	0 1 6
Mahogany, Honduras, per ft. sup. of 1in.	0 1 4
DO., *Cuba, per ft. sup. of 1 in.*	0 2 6
DO., *African, per ft. sup.*	0 1 3
Teak, per ft. sup. of 1 in.	0 1 2
DO., *ft. cube*	0 14 0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube 0 4 6
DO. framed in floors, roofs, etc., per ft. cube 0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube 0 8 6
PITCH PINE, add 33⅓ per cent.
FIXING only boarding in floors, roofs, etc., per sq. 0 13 6
SARKING FELT laid, 1-ply, per yd. 0 1 6
DO., 3-ply, per yd. 0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq. 2 0 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run 0 0 4½
DO. 9 in. wide and over, per ft. sup. 0 1 2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ¾ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ¾ in., per ft.	0	1	8
DO. ¾ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1½ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft. run	0	10	6
WIPED soldered joint, ¾ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ¾ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* "	0	2	3
DO. *6 ft. sup.* "	0	2	6
DO. *20 ft. sup.* "	0	3	1
DO. *45 ft. sup.* "	0	3	3
DO. *65 ft. sup.* "	0	3	5
DO. *100 ft. sup.* "	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.). Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Steady mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	0	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

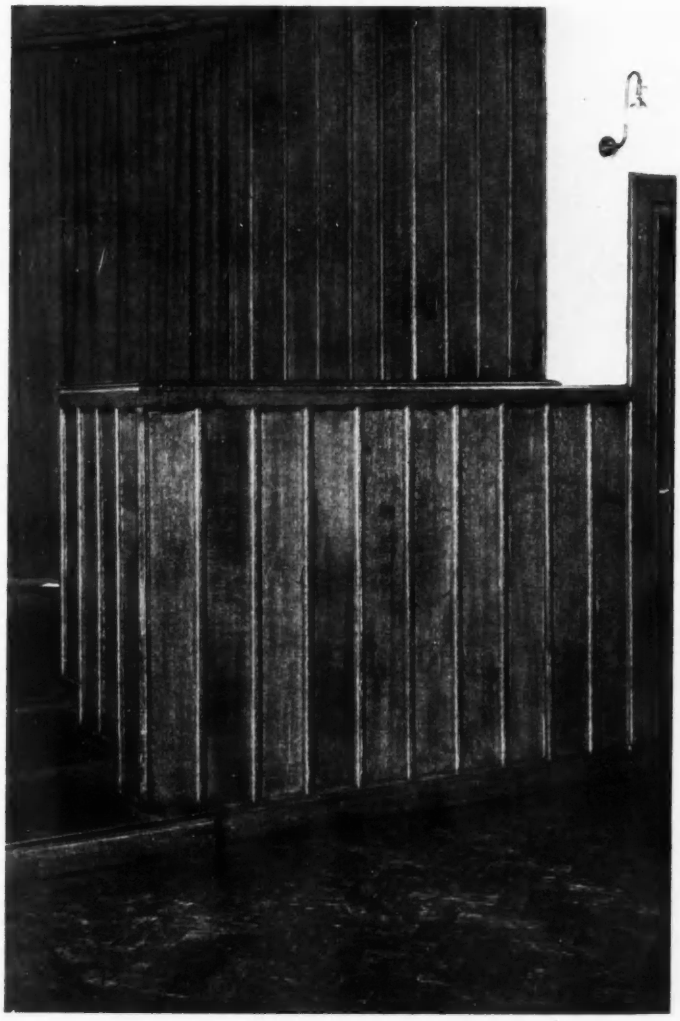
SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. from 3d. to	0	0	6
Plaster-board, per yd. sup. from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	¼ in.			⅜ in.			½ in.			⅝ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	10½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1	6	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1	0	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



READING DESK,
KINGSLEY HALL, BOW, E.3
Designed by C. COWLES-VOYSEY

THE photograph shows one of a pair of reading desks flanking the opening of the apsidal end of the Assembly Hall, other details of which were given in our issues dated October 22 and November 19 last.

These desks, which are made entirely of English oak, have been designed in a restrained and dignified manner in keeping with the rest of the room, which, although intended primarily for secular purposes, is frequently used for Divine service. While admirably fulfilling their purpose on these occasions, they in no manner obtrude their character upon the occupants of the room at other times.

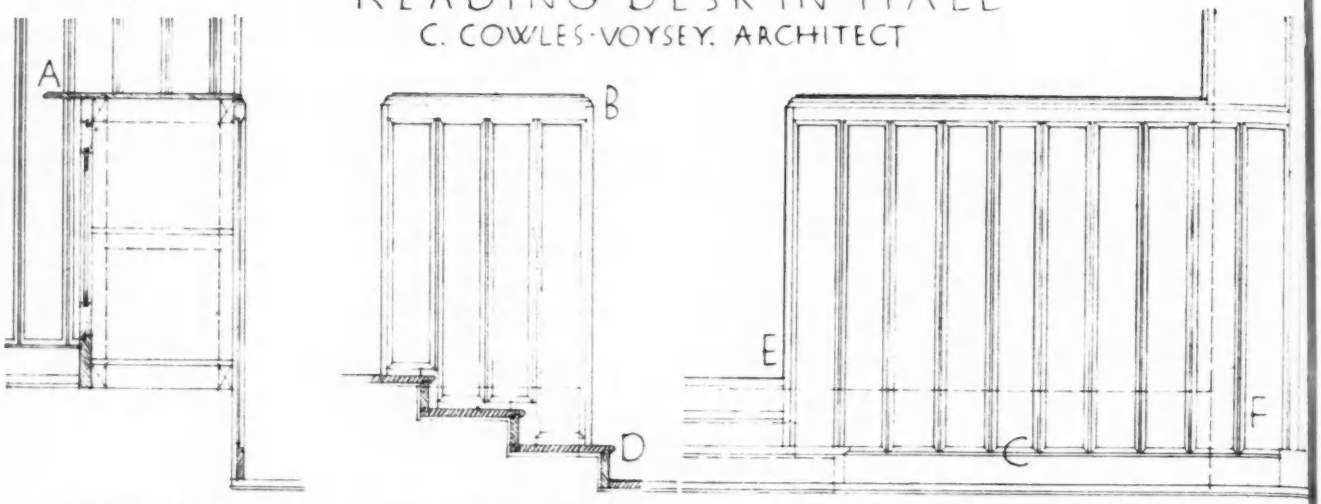
Reference to the drawings will explain the general construction and details.

The drawings overleaf may be read with architects' scales.

KINGSLEY HALL · BOW · E

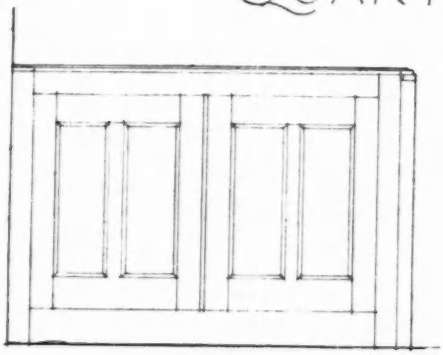
READING DESK IN HALL

C. COWLES-VOYSEY. ARCHITECT

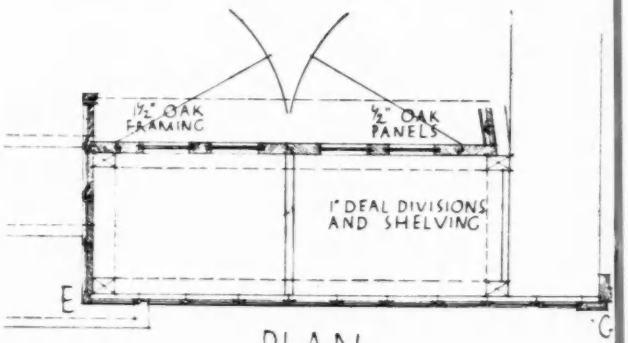


SECTION END ELEVATION ELEVATION & HALL

QUARTER-INCH SCALE DETAILS

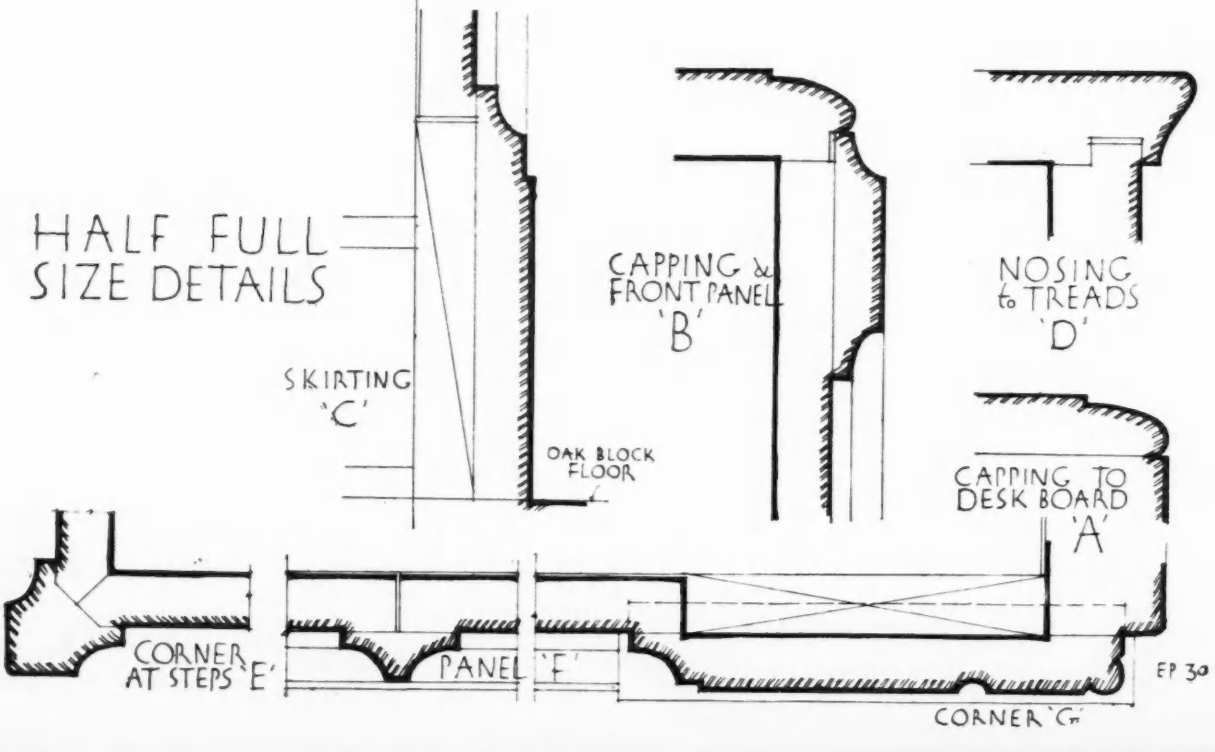


SIDE ELEVATION & APSE



PLAN

HALF FULL SIZE DETAILS



THE ARCHITECTS' JOURNAL



WEDNESDAY, DECEMBER 10, 1930

A NOBLEMAN'S BRICKS

THE political situation, in so far as it affects the import of foreign materials, is so dubious that many manufacturers are waiting to see which way the finger will point, and whose finger it will be.

In spite of rumours, we do not think an election is probable for several months, and, even if it were, the duty of every citizen is to put into immediate practical effect his desire to reduce the number of unemployed in Great Britain. The architect has a heavy responsibility in the matter, for he can encourage the supply of British goods by specifying them for his clients' works.

During the housing "drive," after the war, there were at times shortages of cement, bricks, and sanitary and other goods, and some British manufacturers were inclined to charge exorbitant rates. In consequence, foreign firms, owing to their reasonable prices, obtained a connection here—a matter for which the home manufacturers have mainly themselves to blame. With practically two million persons unemployed, Great Britain must forget all that. Both corporations and individuals must support the industries of the nation.

For years the Departments of State have given a preference to Empire products in their building specifications. We are surprised that more of the great landlords have not followed this good example. The London ground-landlords are in a position to enforce conditions similar to those enjoined by the State for work on their estates, which cover an enormous portion of London—areas on which a large amount of rebuilding is now proceeding. Many of these ground-landlords are traditionally or politically associated with the policy of stabilizing the home market. Are they consistently using their power to apply that policy in the matters connected with their own estates?

We know at least one case where this elementary condition for the improvement of commerce is not only disregarded, but its opposite condition is being imposed; that is, the specification of a foreign material is being dictated, contrary to the architect's wishes. And that material is brick, of all things.

The ground-landlord's case is that during the shortage of bricks Dutch bricks were used on a certain building in the West End. To preserve the amenities of the street, the fiat has been issued that similar foreign bricks are to be used in an adjacent building, to be erected, by the by, for an entirely different use.

We are the more astonished at this instruction, because the ground-landlord concerned is one of the most enlightened in England and a patron of the arts. Surely he realizes that, for variety and beauty of colour and texture, English bricks are pre-eminent in the world, and that our makers are such skilled craftsmen as to match any alien brick closely enough to satisfy the most exacting critic; whilst any difficulty in the matter of size is so slight as to be adjustable on the joint.

Or is it a case of some general ruling, as to control of elevations, made by the ground-landlord, and interpreted too strictly by his agents?

We know of another building on the same estate, but in a different street, in which only British materials have been used throughout, surely a more desirable precedent to follow.

The instinct of rural landlords is to use not only English but local materials. With the advent of cheaper transport and the incidence of death duties, there is a temptation to buy in the cheapest market. Thus come the French tiles in Thatcham, and American plywood in Woodford Oaks; the speculating builder with a thankful heart follows the gentry over the financial fences.

We confess to being somewhat sceptical of any rapid amelioration of our discontents by political parties. We place reliance mainly on individual effort, and our hope not in a nostrum but in a million remedies from a million men and women.



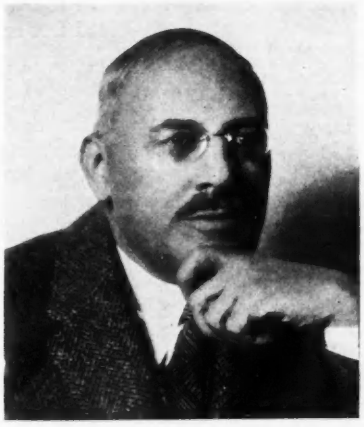


ONE WAY AND ANOTHER:
ii: ANCIENT AND MODERN IN SWEDEN

It is well known that the Stockholm Town Hall harked back to traditional forms, but most people accepted the knowledge hazily, not having met with what was traditional in Sweden. These two photographs bring out marked similarities between the new building and the very ancient Royal Manor of Bachaskog, in Scania. One may notice the courtyard plan, the corner tower, and the partiality for long lines of unbroken walling, all features conspicuous in the design of the Town Hall; and this building may explain in some measure the extraordinary vigour of Ostberg's interpretation of national building.

Knowing this, the conception of Stockholm Town Hall as the sublimation of a national way of building is heightened, and the feeling of its being an isolated monument to one man's imaginative complexity no longer needs explanation, since its roots are seen to stretch back through the ancient soil of his country.

NEWS & TOPICS



Josef Hoffmann, who celebrates his sixtieth birthday on Monday next. In 1898 Hoffmann, Josef Olbrich and their friends founded the Viennese Succession, a group of architects, artists and craftsmen who were the real pioneers of the Modern Movement. The year following he was appointed Professor of Architecture at the Vienna Institute for Art and Industry, where he still directs his famous Fachklasse für Architektur. *His influence in this country has been considerable, and is plainly discernible in Heal's new building, and many of the large London houses erected in the decade prior to the war.*

JOSEF HOFFMANN

THE sixtieth birthday of Josef Hoffmann, which falls next Monday, is to be the occasion of an international testimonial to the man who has been called with good reason "the first architect of the Modern Age." As an architect, Hoffmann's influence in this country has been considerable, and is plainly discernible in Heal's new building, and many of the large London houses erected by William Willett in the decade prior to the war. In the design of villas he was the first to consider habitability before style, building outwards from a logical plan, and as a craftsman of everything from tombstones to teacups, he has continued the work Morris and Ruskin began, but in a wholly different spirit, substituting fitness for purpose for the ideological cant of "art for art's sake" and irrelevant moralisings. He has also studied as no one before him the form-giving function of all the innumerable small objects which together constitute the organic unity of a house.

★

Josef Hoffmann was born at Pirnitz on December 15, 1870. After passing through the School of Arts and Crafts at Brünn, he spent a year building new barracks in the Baroque City of Würzburg. In 1892 he came to Vienna, where he studied for two years under Hasenauer, at the Imperial Academy of Fine Arts. In 1894 he became the pupil of Otto Wagner and only a year later his partner. In 1898 Hoffmann, Josef Olbrich and their friends founded the Viennese Succession, a group of architects, artists and craftsmen who were the real pioneers of the Modern Movement. The year following he was appointed Professor of Architecture at the Vienna Institute for Art and Industry, where he still directs his famous *Fachklasse für Architektur*. In 1903 he started, in conjunction with Koloman Moser, the "Wiener Werkstätte," an organization with which his name and personality have ever since been identified. The gulf between the "Wiener Werkstätte" and Liberty's is the gulf between Josef Hoffmann and William Morris. In 1912 he founded the Austrian "Werkbund," of which he has been a tower of strength. He has designed Austrian Pavilions for the Exhibitions at Paris in 1900 and 1925, Buenos Aires, Rome, Dresden, Leipsic, Cologne, Stockholm and Copenhagen.

★

The pity is that Hoffmann, who created the Viennese style and has made it familiar throughout the world, should never have had the opportunity of designing any public buildings. Virtually all his work has been in the field of domestic architecture and decoration. His earliest villa dates from 1902. The Sanatorium at Purkersdorf is a presage of the severest Modernism. The Haus Ast (1910) and the Haus Bernatzig (1912), like the villa colony at Kaasgraben, are very English-looking and equally simple. The Palais Stoclet (1905-1911), in the Avenue de Teroueren in Brussels, which is faced with white Swedish marble, is perhaps the best known of his earlier buildings; though the Haus Skywa in Vienna (1913) is much more characteristic. The model sales rooms at the Wiener Werkstätte (1918) are typical of Hoffmann's decorative genius. To have seen over the Haus Knips in Vienna (1924) with Hoffmann himself as guide to those exquisite interiors, is an experience I shall always remember. Hoffmann was a staunch friend and admirer of the late Rennie Mackintosh, and befriended him in his distress. At sixty, Hoffmann's genius is as green and vigorous as ever. It is to be hoped that the R.I.B.A. may soon honour itself by honouring a man who may be described as the *doyen* of European architects.

SIR LAWRENCE WEAVER MEMORIAL

It was in July last that a movement was put on foot with the object of commemorating in perpetuity the name of the late Sir Lawrence Weaver. At first an exhibition hall in London was proposed, but so much evidence has reached the Committee of the general feeling that the memorial should be directly associated with Ashstead, that they have now secured a suitable site in close proximity to the factory of Ashstead Potters, Ltd. There it is intended to erect a recreation hall, for the use of the men employed in an undertaking founded by Sir Lawrence solely to give employment to wounded ex-service men, embodying, if found practicable, offices and showrooms for which there is a great need, with perhaps a cloister added. The Committee ask for leave to devote subscriptions already received to this new object, and would welcome further financial support. Contributions should be sent to the Hon. R. Stafford Cripps, K.C., 3 Elm Court, Temple, E.C.4.

RE-PLANNING ALREADY DEVELOPED AREAS

A very interesting and workable plan has been advanced by Sir Theodore Chambers to deal with schemes of re-planning in already developed areas. He remarks, with what justice I am not prepared to say, that neither private enterprise nor the normal machinery of local government is adequate to deal with the volume of intricate financial and other adjustment involved by such schemes, and that a system of Improvement Boards and a Central Commission,

rather similar to the Central Electricity Board, could overcome many of the difficulties.

*

Supposing a district was to be re-planned on local initiative, the Board would be composed of property owners, with adequate representation of official and government bodies. The Board would have a statutory right to buy property, lay out streets and re-plan under safeguards as to curtilage, open space, etc., etc., and, being representative of all those owning property and having a financial interest in the area, some of the gravest objections, and the heavy load of compensation payable under local governmental re-planning, would be entirely obviated. On the other hand, the Board's official status would carry with it the necessary control over such large scale freehold ownerships. It is an idea which one hopes may be freely discussed, even if it no more than offers a release from further mass production of government officials.

WEST ESSEX ARCHITECTS' BADGE OF OFFICE

The beautiful badge for the West Essex Chapter of the Essex, Cambridge and Hertfordshire Society of Architects, illustrated on this page, was designed by Professor Richard L. Garbe, A.R.A., F.R.B.S., and is to be worn by the presiding Chairman during his term of office. It is executed in silver, with neillo and cloisonné enamel, and takes the form of a circular band with an inscription, around which are arranged three shields containing the arms of Essex, Cambridge and Hertford in niello. The centre device, in gold and blue cloisonné enamel, symbolizes the golden portal of architecture, with the river below, symbolizing the River Thames as the southern boundary of the Chapter's activities. From the outer circle spring at top and bottom two curved lozenge forms and a pierced fret as enrichment.



The badge of the West Essex Chapter of the Essex, Cambridge and Hertfordshire Society of Architects. It was designed by Professor Richard L. Garbe, and is to be worn by the presiding chairman during his term of office.

*

This beautiful example of the jeweller's art was executed by Mr. H. Murphy, well known in the Art and Crafts movement, and has been presented to the West Essex Chapter by Mr. William Evans, F.R.I.B.A., a member of the Chapter, an inscription to this effect having been placed on the reverse of the badge. To the ribbon is attached silver bars to perpetuate the Chairmen of the Chapter. The past holders of the office whose names are already inscribed on the bars are : Messrs. J. J. Crowe, J.P., O.B.E., A.R.I.B.A., and Christopher M. Shiner, A.R.I.B.A. The present holder is Mr. S. Phillips Dales, F.R.I.B.A.

THE BEARDED BUILDING ACT

The venerable London Building Act is on the run, which is, perhaps, an undignified manner of describing the effect of the report presented by the Committee of the R.I.B.A. Conference on Building Regulations, but not so far from fast when the contents of this remarkable document are known.

*

What London architect has not counted his losses of time and temper, as he dashed from one den of officials to another, seeking their consent to sensible departures from an obsolete code ? Just think what it means to have to obtain consents from several different quarters before plans for a theatre can be put in hand—and some of the committees may be on holiday ! Then, as a light relief from these depressions, be warned that in Marylebone the Bidet waste is taken into a soil pipe, in Westminster far otherwise, for it is into the waste pipe that the Bidet goes.

*

Back again to stern realities, to consider the Water Companies and their 1872 regulations. Under these historic regulations only certain taps may be used, spring taps being in certain places forbidden. And the push button apparatus for flushing tanks is frowned upon, what though it is a piece of mechanism tested and found efficient years ago in New York and many other places.

THE NATURE OF THE LAW TO BLAME

The whole trouble, as Mr. Shelley in his lecture at the R.I.B.A. pointed out, rests in the nature of the law by which these things are ordained. In London it is an Act which, once made, requires a further Act to amend or repeal it, where elsewhere it is a bylaw, capable of constant revision in the light of advancing building science.

*

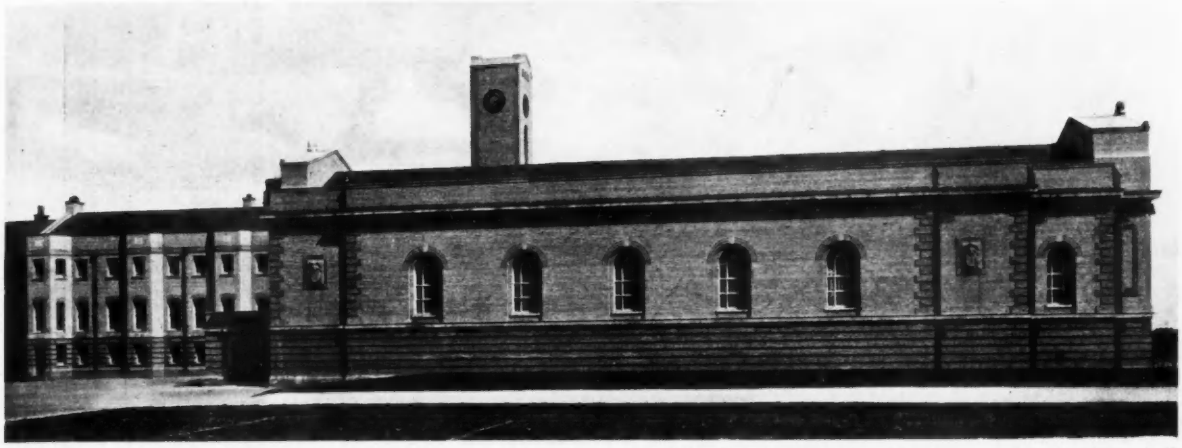
But I can't help laughing, with Sir Owen Williams, as I think of the indignant accusations of extravagance against the present building laws by gentlemen whose Queen Anne office buildings absolutely bulge with excrescence and pay about as much attention to economical steel construction as Beau Brummell himself. What an effective counterblast there might be if the L.C.C. were able to write a report about office buildings.

MAIDSTONE PRISON SITE

Kent County Council have selected one of three alternative schemes submitted by Mr. Harding Thompson for the lay-out of the Maidstone Prison site for county buildings. Mr. Thompson's scheme incorporates the present county building in an extended half-courtyard which must unfortunately face uphill. This apart, the scale of the forecourt must undoubtedly invoke a very dignified composition of buildings, even though its final completion will be a matter of some years. ASTRAGAL

NEW COMMON ROOM AT ROSSALL SCHOOL

DESIGNED BY THOMAS WORTHINGTON AND SONS



In this view of recent developments at the school the new block appears to the left of the photograph. Nearer at hand is the dining-hall, completed a year or two ago by the same architects. The buildings face west, and are carried out in silver-grey bricks in two tones.

THE new block here pictured and described is part of a scheme of building and rebuilding, spread over a number of years, undertaken by the Governors of Rossall School. Thus, rather more than two years ago, a new dining-hall was completed to the designs of Mr. Hubert Worthington, of Messrs. Thomas Worthington and Sons. (It was fully illustrated in THE ARCHITECTURAL REVIEW for August, 1928.) Thereupon, the old dining-hall, which it superseded, was pulled down. And upon the site thus vacated the same architect has now provided accommodation that has, for its most important feature, a masters' common room, but also includes boys' clothes locker rooms, linen rooms and dormitories. The lockers, sewing-room, larders, etc., are on the ground floor, whilst on the first floor is the masters' common room suite, with a separate entrance and staircase, and beyond this the linen rooms, stewards' office, etc. On the second floor there are dormitories for forty boys, entered from Rose House on the north side of the block; at the further end of which are the men's and butlers' bedrooms and cubicles. To provide such a variety of services on a site of no very considerable area necessarily introduced complications in planning, and the various solutions arrived at will be of special interest.

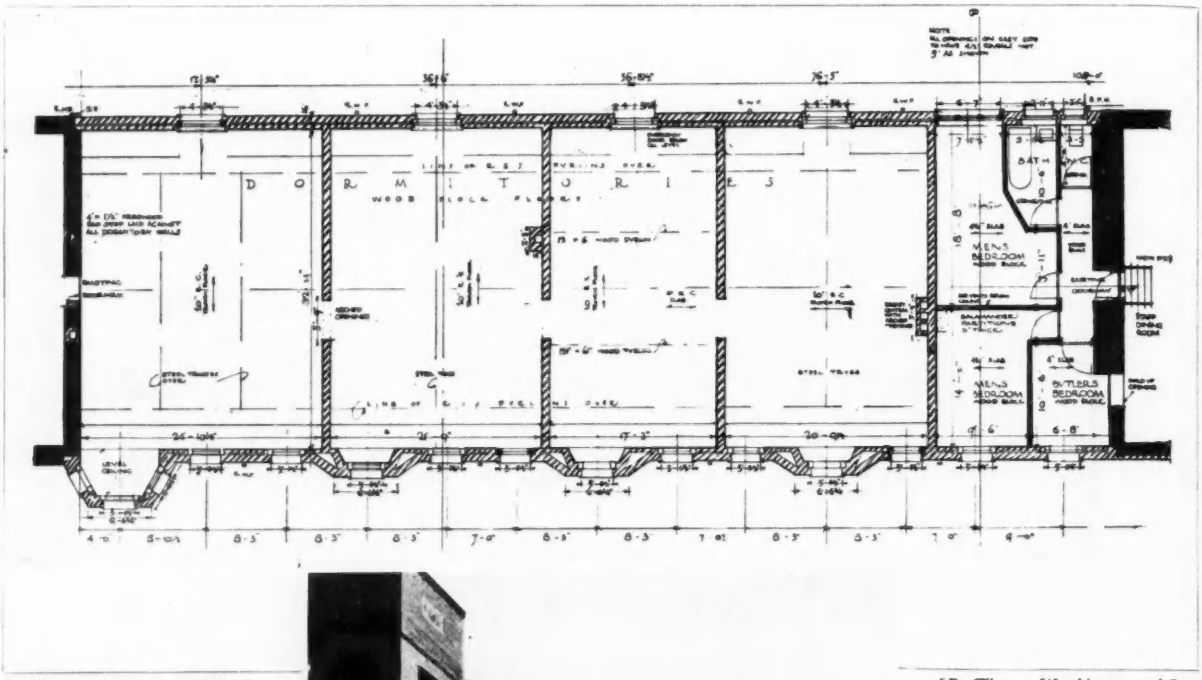
The school buildings are close to the sea, at Fleetwood, Lancashire, and the possibility of encountering running sands was one that had to be faced, as when the dining hall block was undertaken, in designing the foundations.

The new building is faced, as in the case of its predecessor, with silver-grey bricks in two tones, the darker shade



Excellence of craftsmanship in the bricklaying is revealed by this study of the new block taken from the south-west, and showing the entrances for masters and for boys, to left and right, respectively. The first-floor stringcourse is of Portland stone.

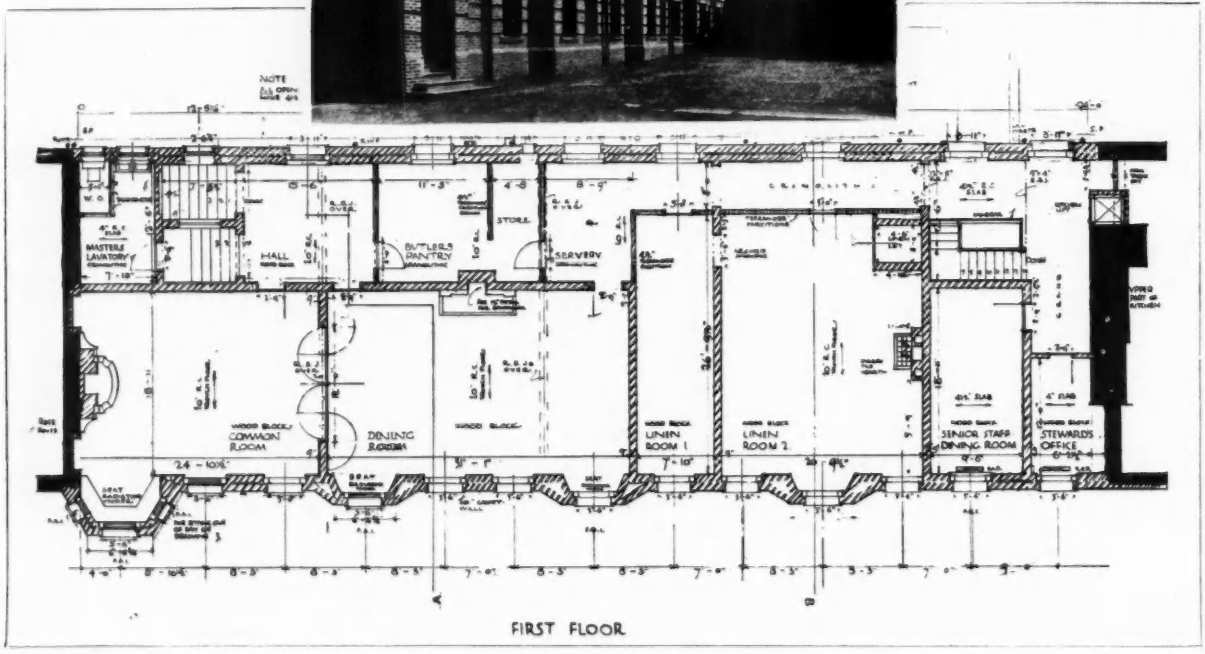
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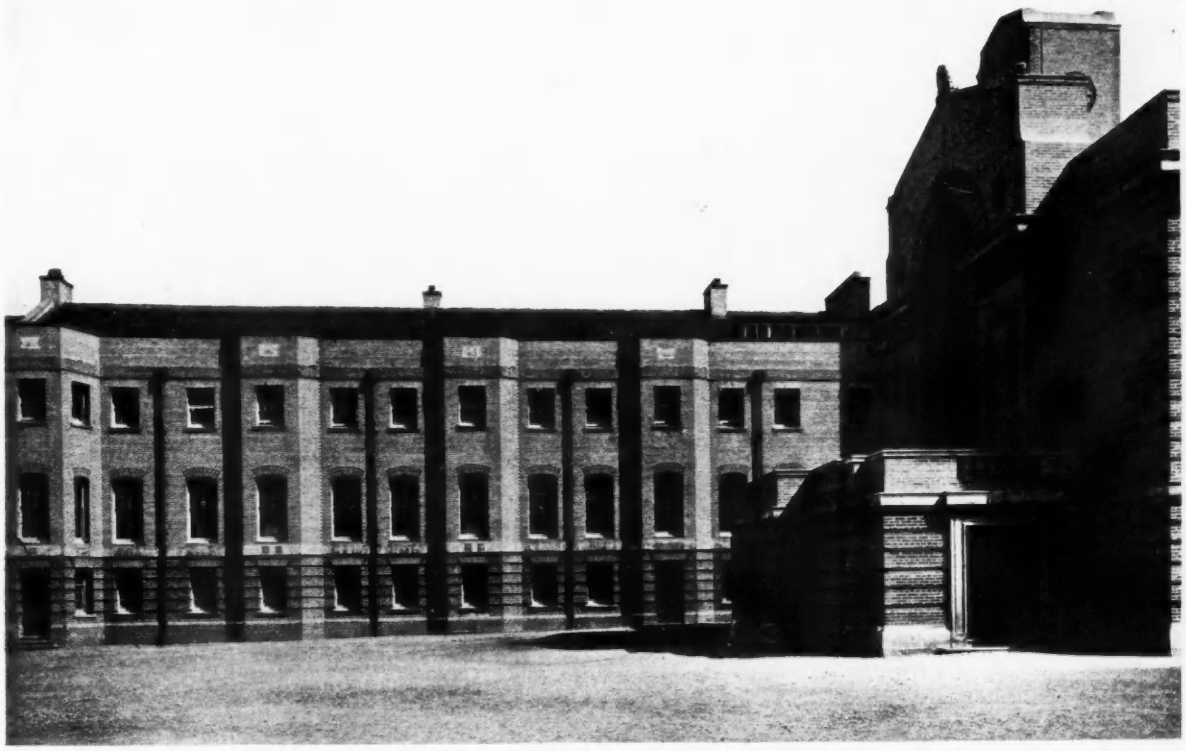
Rossall School, Lancs.; additions] [*By Thomas Worthington and Sons.*

On this page are reproduced a photograph, taken to give an impression of the grouping of the common-room block and the dining-hall block, with its clock-tower ; and the architects' drawings of the second- and first-floor plans of the former. The upper is devoted to dormitories for boys quartered in Rose House, next door, on the north, and to bedrooms for the butler's staff. The masters' common room is the chief feature of the first floor, and the most important room in the house : considerable space is allotted to linen rooms, a senior staff dining-room, served from the kitchens in the dining-hall block, etc.

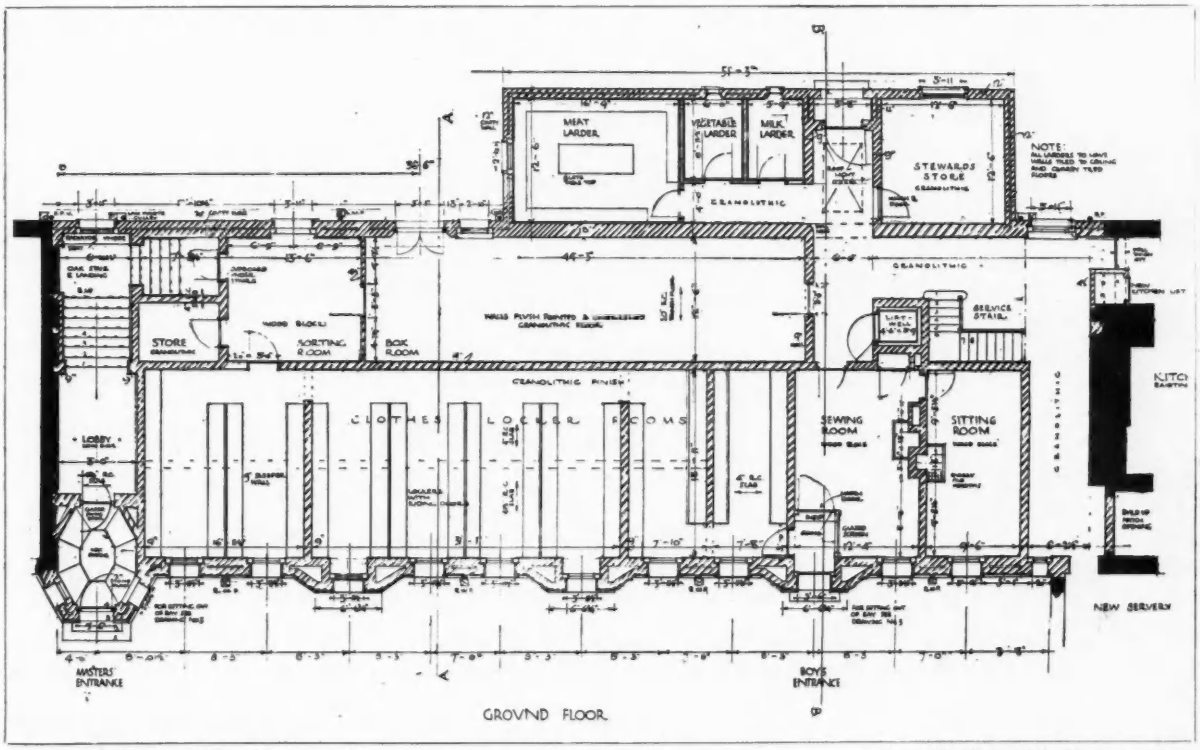




FIRST FLOOR

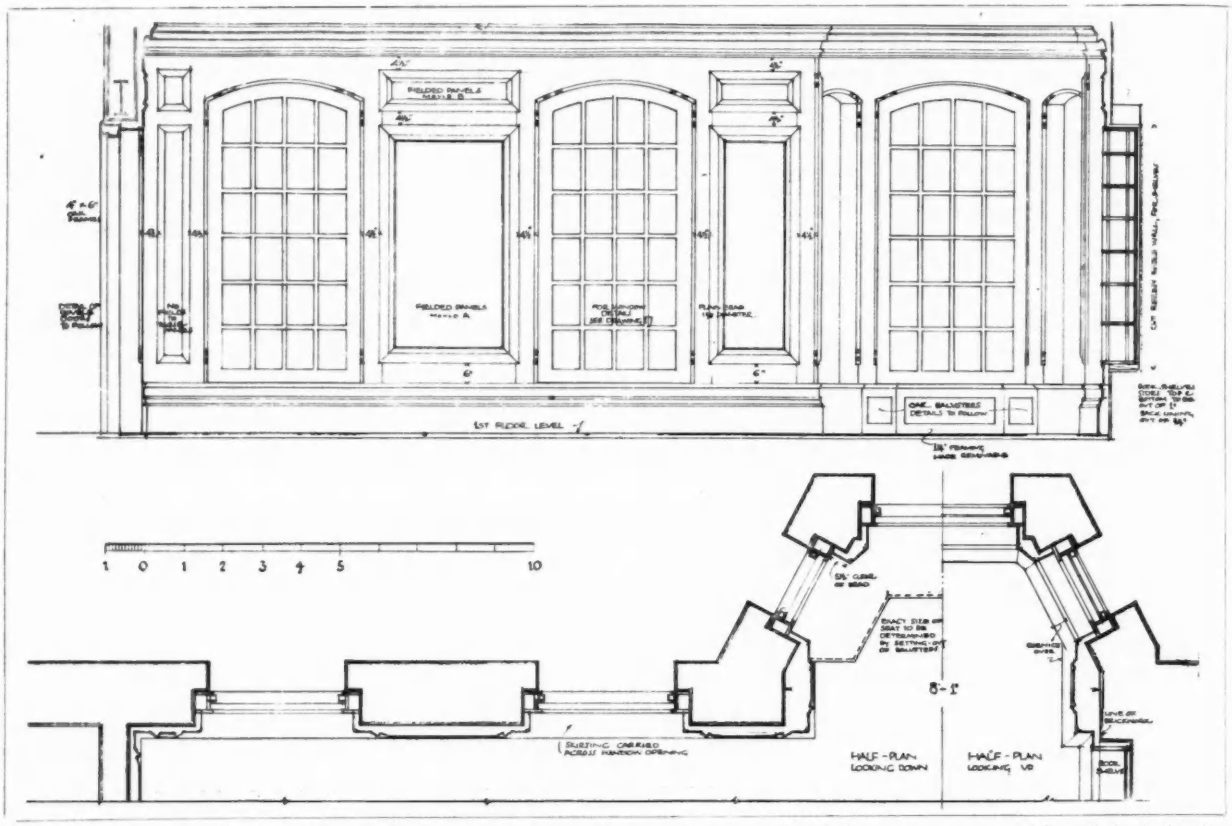


A general view of the new building. On the extreme left (but not here shown) is Rose House, one of the boys' boarding houses, and on the right are the kitchen quarters attached to the existing dining hall block.



Rossall School, Lancs.; additions] *[By Thomas Worthington and Sons.*

The architects' drawing of the ground-floor plan, reproduced to the same scale as those on the facing page. Here are boys' clothes locker rooms, a sewing room and a sitting room. On all plans, existing walls are shown black, and new work is hatched.

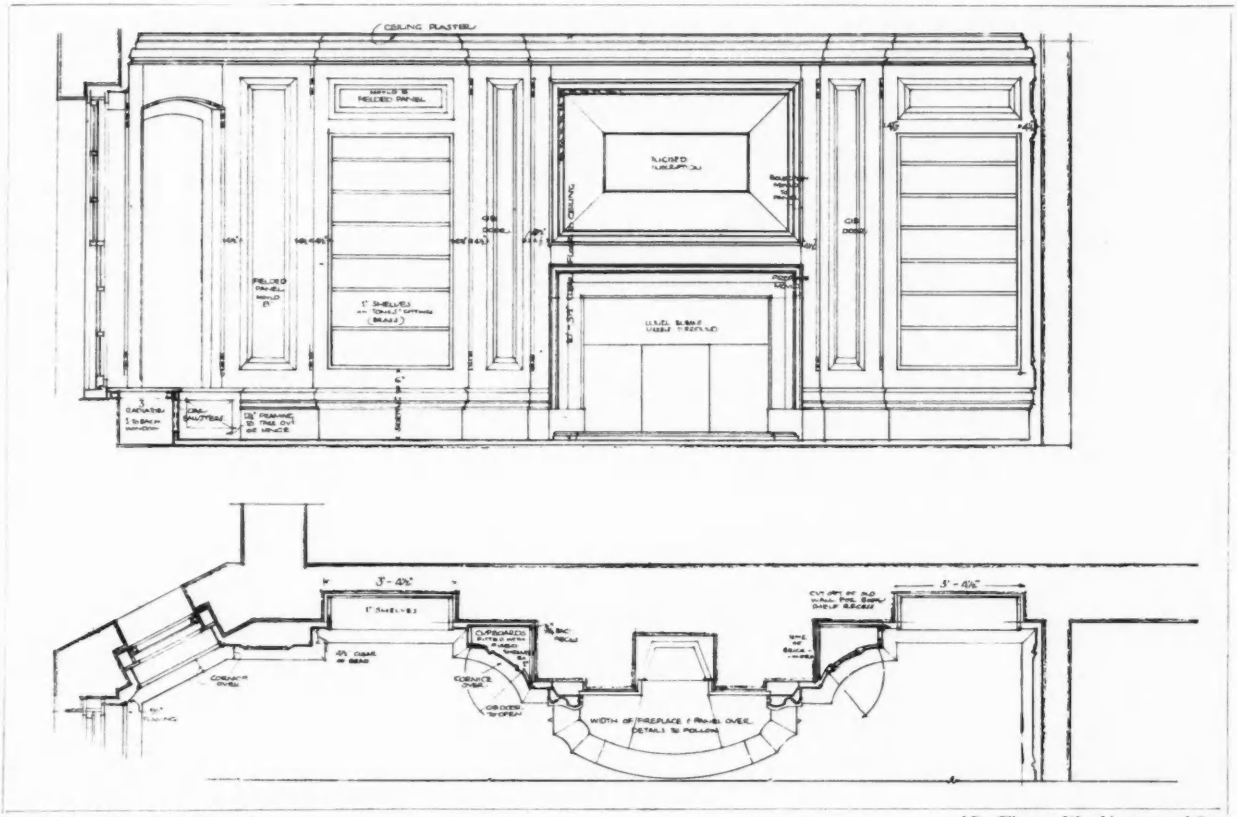


A reduction from the architects' half-inch scale elevation of the panelling on the west side of the common room. The effect of the deep bay illustrated on the right is seen on the left of the photograph reproduced below.



Rossall School, Lancs.; additions] *[By Thomas Worthington and Sons.*

This view of the common room shows the general appearance of the panelling, which is carried out in English oak. Drawings of only two sides appear here; the design of the others, which consist of symmetrical panels, will, however, be inferred from the right-hand wall.



Rossall School, Lancs.; additions.] [*By Thomas Worthington and Sons.*

The panelling of the north side includes bookshelves and the fireplace, with an inscription recording the presentation of this decorative feature of the new common room by an old Rossallian. The marble of the fireplace is Lunel Rubane.

for the channelled ground floor, the arches of the first-floor windows and the stringcourse at the top, and the lighter tone for the remainder of the building. The first-floor string is of Portland stone and so are the four carved panels in the parapets of the bay windows. In these panels are sculptured three mortar boards and birch rods to indicate the masters' quarters, a rose to represent the house which uses the dormitories, a mitre as the school crest, and a wicker basket with blankets, etc., to indicate the linen rooms.

The masters' common room is panelled in English oak. On the panel over the fireplace is the following inscription: "An old Rossallian who left School in 1886 presented the panelling of this room as an expression of the gratitude which he and his generation feel towards the many Masters of his time who gave long years of devoted service to Rossall."

The Mansion House

Mr. Sydney Perks, F.R.I.B.A., architect and surveyor to the City of London Corporation, read a paper on "The Building of the Mansion House," at the Royal Society of Arts, last Wednesday.



A near view of the fireplace. The panel above it bears the incised inscription, hardly discernible in the photograph.

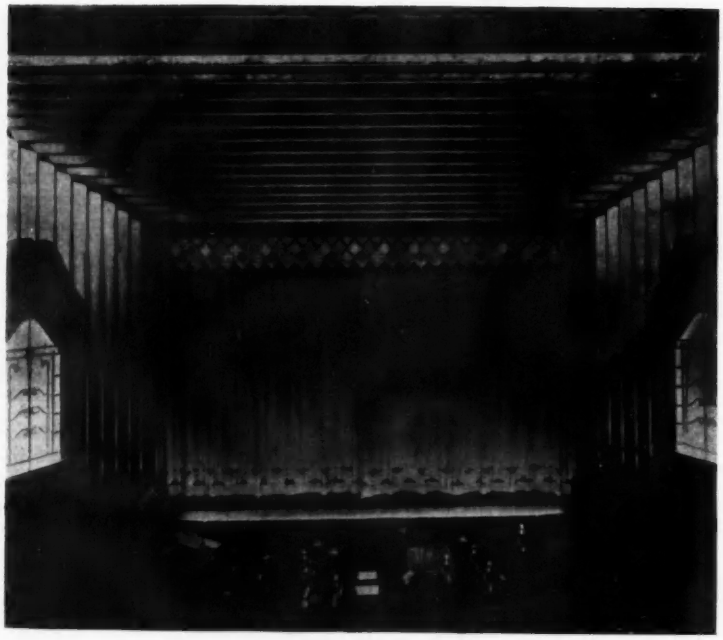
Alderman Sir Thomas Vansittart Bowater, Bt., M.P., presided.

Mr. Perks remarked that he believed the Mansion House was the only structure now existing which, like the Palace of the Doge at Venice in the Middle Ages, was a residence, a court of justice, and a prison.

After describing Dance's building in detail, by means of lantern slides, the lecturer continued by saying it was nearly 200 years since the Mansion House was designed; the neighbourhood was the most important and valuable part of the City, where new buildings were constantly being designed by the leading architects of today. But the Mansion House "held its own," and a thoughtful observer might ask if there had been much improvement in our architecture in 200 years. Had not the spirit of advertisement crept into our designs? A big building seemed to shout "Look at me, I'm a Bank," and the next building seemed to cry out "Don't look next door, look at me, I'm an Insurance Office"; and so they competed for publicity. In the meanwhile the Mansion House seemed like an ancient dame, to smile and snub them with its quiet dignity, and show the contempt of the old regime for the *nouveaux riches*.



The brick and Bath stone front to Finchley Road is equipped with apparatus for flood-lighting the towers containing stairs leading to the balcony, and several pairs of large and small permanent panels are provided for advertisement posters



The stage and proscenium. The arch is finished in dull gold, and the curtain is brick-red, with satin appliqué of geometrical patterns in various colours. The prevailing tints in the theatre are beige and blue.

ORPHEUM
Finchley

DESIGNED BY YATES,

THE Orpheum Theatre, erected upon an open site in the Finchley Road, at Temple Fortune, Golder's Green, has seating capacity for no fewer than 2,400 persons. Londoners whose usual beats lie within or well clear of what used to be known as " the three-mile circle " are apt to remain oblivious of what is going on around the outskirts of this colossal city, and may well feel some surprise at the magnitude of the public presupposed; not so those who have kept an eye on the rapid growth of what is fast becoming in itself a subsidiary metropolis.

In a cinema enterprise of this size considerable space has to be devoted to accessory accommodation; accordingly there is a spacious foyer, and a café and tea-room at balcony level afford accommodation for 300, while large waiting-spaces have been provided on the ground floor.

The main elevation is symmetrical, and, with its two dominating towers,



The entrance foyer, showing a pay-box ; stairs up to the crush-hall, café and tea-lounge, which is planned on the main front, on the floor above, and direct to the balcony, respectively ; and the three pairs of doors leading to the stalls.

THEATRE

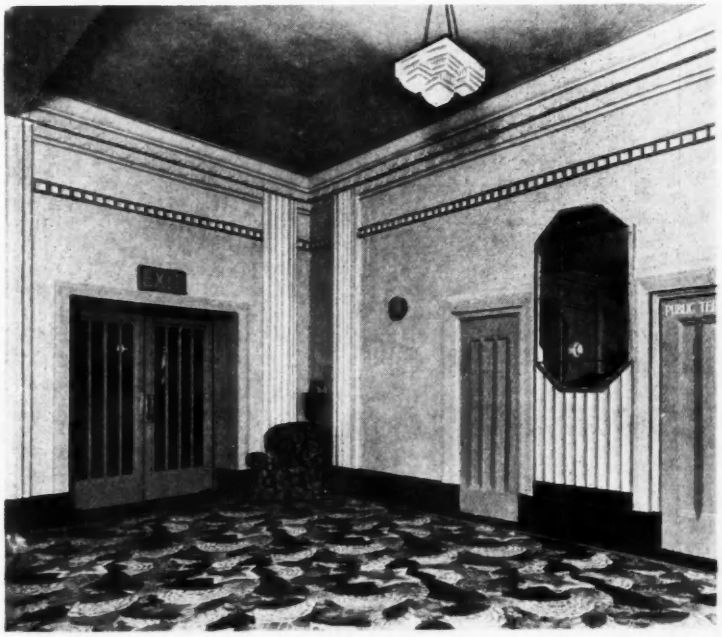
Road, N.W.

COOK AND DARBYSHIRE

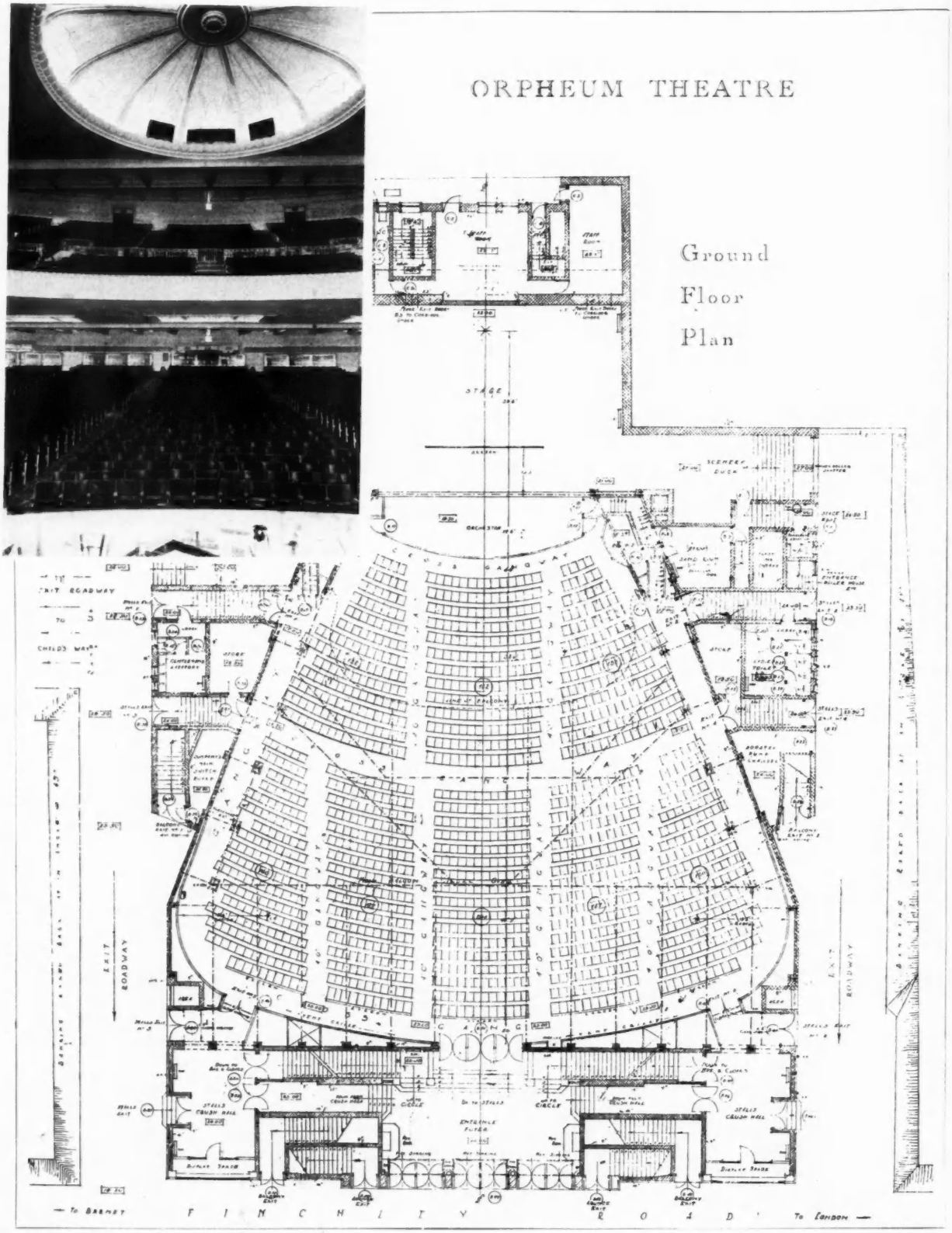
flood-lit by night, is constructed in purple-brown Gloucester bricks, with cornices and facings of Bath stone. Large poster spaces have been expressly designed.

Within, the scheme of decoration, not only of the auditorium but of the foyer, tea-lounge and café, is carried out on modern French lines, but is kept of a very simple character. Tones of beige predominate, with enrichments in blue. For example, the panels at the base of the dome in the centre of the auditorium ceiling are in blue, but gold has been sparingly used in the dome itself; the proscenium arch is also in dull gold.

A glance at the plans will reveal the manner in which the very complete service of amenities demanded by the modern picture-house public has been disposed. The problem of rapid exit will be found to have received special attention; and here it takes place in the most favourable circumstances, a lateral road running either side of the front.

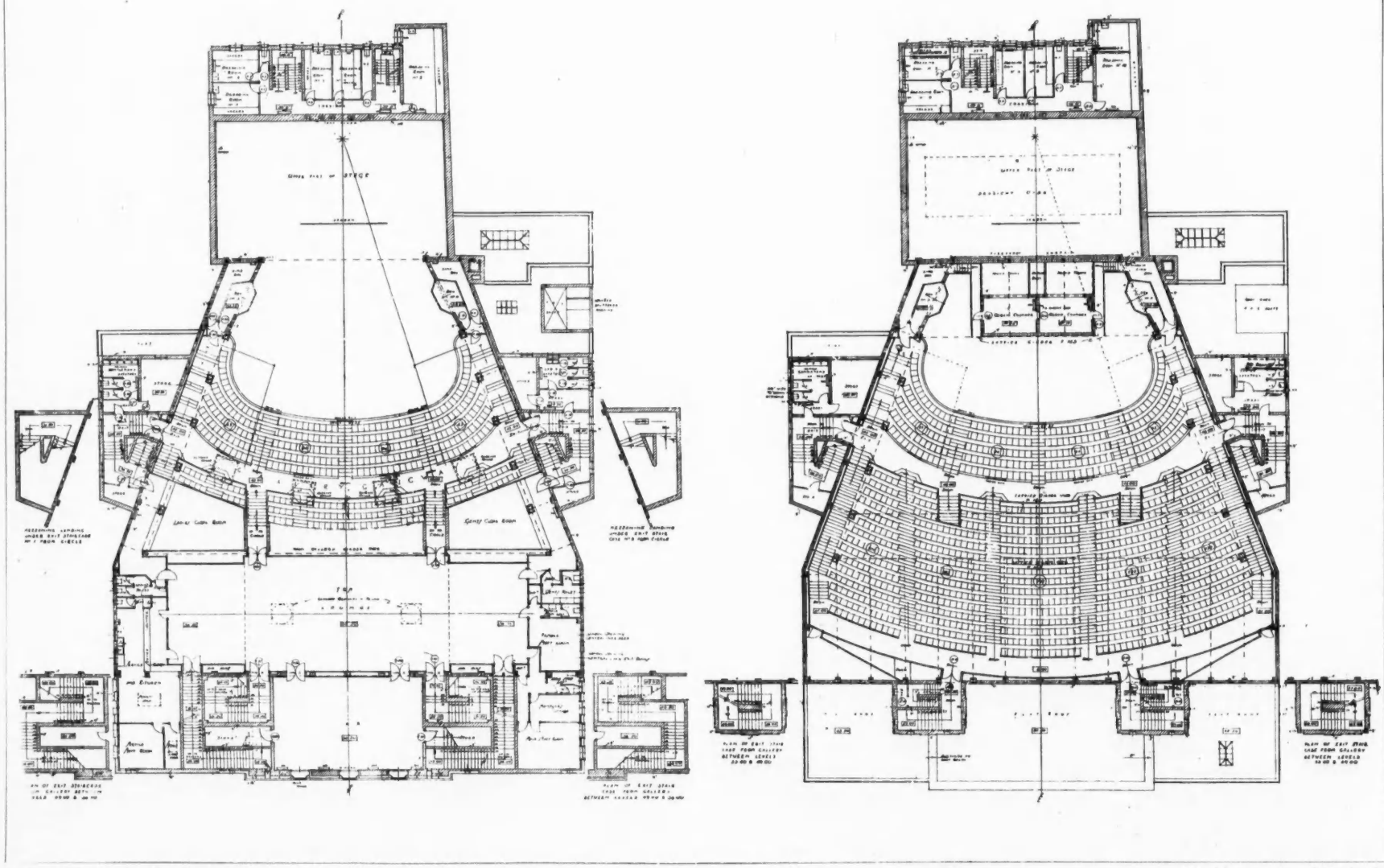


A corner of the tea-room, which is decorated in warmer tones of the same colours used in the auditorium : the carpet is in rich autumnal reds and browns. Tray lights are suspended from the ceiling.



Orpheum Theatre, Finchley Road, N.W. [*By Yates, Cook and Darbyshire.*

The ground-floor plan; and a photograph from the stage, to give an impression of the size of the house. The site, with its exit roadways on either side, is almost ideal from the point of view of planning convenient circulations and the multifarious adjuncts of a modern theatre for picture and stage purposes. Total accommodation is for 2,400 patrons.



O pheum Theatre, Finchley Road, N.W.] *[By Yates, Cook and Darbyshire.*

Plans of the first and balcony floors. The café and tea-room, extending across the frontage at the lower of these levels, will accommodate 300 persons. Ample dressing-room and scenery dock space is provided behind the scenes, while the situation of the organ chamber above and in front of the stage, and the arrangements for rapid exit from the balcony, will be appreciated.

BUILDING CONTROL AND LEGISLATION

General Recommendations

THE general recommendations contained in the memorandum on Building Legislation and Control, presented to the Minister of Health and signed by Lord Ebury and Mr. Maurice E. Webb, F.R.I.B.A., chairman and vice-chairman respectively of the conference dealing with this subject, are as follows :

1 : In view of the fact that any Building Regulations—unless subject to constant revision—must become out of date almost as soon as drafted, owing to the continual advance in the development of the science and practice of building, they should be reviewed on a national basis and should be confined to broad questions of principle, provision being made for the establishment of new machinery representative of all the interests concerned to advise upon the making of regulations as and when necessary in order to meet constantly changing conditions and requirements.

2 : Building control under local Acts be made the subject of bylaws or regulations governing technical structural requirements.

3 : Machinery be created for giving national application to new methods or materials of construction and Standard Industrial Specifications.

4 : The report on steel-framed buildings now being prepared under the auspices of the Department of Scientific and Industrial Research be accepted as a national standard, and that an interim report be published with the least possible delay.

5 : National sanitary regulations be drafted to effect uniformity of practice and of interpretation by City, Borough or District Councils.

6 : Water Companies' Regulations, which are very arbitrary and exacting, should be revised to meet modern building requirements, and that the Minister of Health should have power to require this as in the case of building bylaws.

7 : The most far-reaching consolidation of consents be effected (particularly in London).

[In dealing with the question of building control, the situation in respect of London naturally acquires particular importance.

The following recommendations relate to present specific features which require consideration not merely as London problems, but as problems requiring in many cases national settlement.]

8 : Subject to suitable fire provisions, all restrictions as to cubicle limitations be removed, except in the case of warehouses and factories engaged in inflammable processes.

9 : The restrictions imposed upon stores which limit the ceiling height of the topmost story to 80 feet from the pavement be abolished and commission given for two stories in the roof above the 80 foot line.

10 : Provided the building over 80 feet keeps within the angle of 75 degrees, no special permission should be required for its construction on vertical and horizontal planes.

11 : The whole question of permissible heights of buildings be considered in conjunction with zoning.

12 : The provisions in the London Building Act, 1894, restricting the extent of the windows above the ground floor to half the area of the wall, to be rescinded.

13 : There should be no restrictions in the development of suitable sites for the purpose of buildings serving a variety of purposes, such as restaurants and theatres, shops and flats, etc., provided that adequate precautions be taken to avoid fire risks and that the restrictions regarding separate entrances, staircases, lifts, etc., should be relaxed.

14 : A single code of bylaws should be adopted at any rate for the whole of the London district.

15 : When a block of buildings occupies an island site the same regulations which govern height at the front should govern the height at the back.

16 : Bylaws should provide, in the case of lifts, for fire-resisting shafts and fire-proof sliding doors only.

17 : In view of the fact that present Acts of Parliament leave too much discretionary power to the administrative authorities as far as possible where the Acts have to be varied to suit modern forms of construction, this should be done by way of regulations, which could be varied from time to time.

18 : A definite code for theatres and restaurants, applicable to the whole of London, be prepared.

19 : Canopies should be allowed of suitable constructions, irrespective of the nature of the user of the building.

20 : The present regulations governing means of escape should be reviewed with due regard to modern requirements.

21 : London should be placed in the position to deal directly with such technical matters as thicknesses, systems of constructions and materials of walls, coverings of roofs, etc., instead of Parliamentary sanction having to be obtained for every detail.

22 : In the preliminary stages of framing or modifying old bylaws or regulations help from an advisory council of the industry should be sought in some form before any new Regulations are presented to Parliament.

THE CONFERENCE MEETING

At a conference of the representatives of the various associations, held at the R.I.B.A. last Friday, a resolution to form the Technical and Economic Advisory Council, proposed by Lord Ebury and seconded by Mr. Sydney Tatchell, F.R.I.B.A., was carried unanimously. Sir Banister Fletcher, P.R.I.B.A., presided.

Mr. Greenwood, Minister of Health, who, it will be remembered, received a deputation on the subject last July, opened the conference with a speech in which he welcomed the proposal to form the advisory council. He thought it a very good thing that an industry should take steps to rationalize itself and to make itself articulate. One of the most important problems was that of the building regulations, in which connection they would find the position in London of primary interest.

It was desirable that the nation should have the advantage of the use of new materials and new methods of construction. So far as the Ministry of Health was concerned, he welcomed the formation of the council, because it would provide one large body to whom the Department could look for advice, and which could approach the Ministry in a representative capacity.

Following is a list of the representatives of the associations :—

R.I.B.A. (Sir Banister Fletcher, president; Messrs. Maurice Webb, Sydney Tatchell, Louis Blanc, and Howard Robertson). British Steelwork Association (Messrs. J. D. Stitt, M. Buxton, C. J. Kavanagh). Institution of Civil Engineers (Sir Clement Hindley and Mr. David Anderson). Institution of Mechanical Engineers (Mr. Alan E. L. Chorlton, C.B.E.; Mr. Ernest Boynton). Institution of Electrical Engineers (Mr. F. W. Purse). Institution of Structural Engineers (Messrs. Ewart S. Andrews and H. D. Searles-Wood). Royal Sanitary Institute (Capt. W. T. Creswell). National Federation of Building Trades' Operatives (Mr. T. Barron, president). National Federation of Building Trades' Employers (Mr. E. J. Strange). London Master Builders' Association (Messrs. G. L. Edwards and H. J. Holloway). London Employers' Association (Lord Ebury, and Messrs. Martin de Selincourt, J. B. Stevenson, and H. Kay). Building Industry Council of Review (Messrs. A. C. Bossom, B. S. Townroe, and H. B. Bryant). Incorporated Association of Retail Distributors (Mr. E. J. B. Lloyd). Hotels and Restaurants Association (Mr. S. W. Burleigh). Association of British Chambers of Commerce (Major John Colville, M.P.). Chartered Surveyors' Institution (Mr. E. C. Harris). Brewers' Society (Mr. H. F. Fuller). Society of West End Theatre Managers (Mr. R. H. Gillespie). Federation of Civil Engineering Contractors (Mr. G. M. Burt). Building Materials Manufacturers' and Suppliers' Committee (Messrs. H. J. C. Johnston, P. M. Stewart, and J. C. Halliday). Institute of Builders (Messrs. R. A. Costain, R. L. Roberts, and P. J. Spencer). British Medical Association (Sir T. Eustace Hill). Lift Manufacturers (Mr. D. W. R. Green).



ENGLISH PRECEDENT

No. 145

COTTAGES, PETERSHAM, SURREY

The mansard roofs and dormers of these cottages, built for a charity, strike a note of bravura which had become rather rare after Vanbrugh's death. They have the bold effect which is usually so costly that "the pose of the prosaic" is preferred. In this case the simplicity of plan and construction has given a reasonably cheap building.

Pantiles, 150 years ago, were thought inferior in effect to plain tiles, and were used mainly for outbuildings and back elevations. It must have been the rich colour and texture on such well-shaped steep roofs as these which signalled in the Romantic Revival. The adjacent cottage is a perfect, and necessary, foil.

—[P. M. STRATTON]

LETTERS FROM READERS

Soot-Bound

SIR,—I was interested to read your delightfully satirical leading article entitled "Soot-Bound" in your issue for November 26. As you remark, the progress of smoke abatement makes a sad tale; in fact, it is more than a tale—it is a veritable serial story. What are the reasons for the survival of this unquestioned and universally acknowledged evil? The case for smoke abolition, on economic, æsthetic and humanitarian grounds, is absolutely unassailable, and is well known to all who lead or create public opinion. Why, then, does smoke continue to be poured from the chimneys of our factories and houses? Why should there have been the necessity, last year, to form a National Smoke Abatement Society?

There are three important factors which, I think, should be considered:

1: There is little doubt that industrial smoke is decreasing: not fast enough, by any means, but, nevertheless, appreciably. This has been accelerated in many areas by the wise and continuous application of the law, although, elsewhere, the public health authorities have not yet awakened to their duties. Secondly, the growing realization among engineers and fuel technologists that smoke can be avoided and that its elimination means efficiency and economy, is doing a great deal. The laggards, however, require an additional incentive to progress.

2: That, in spite of the increased use of gas, electricity and various types of solid smokeless fuels, there is no marked diminution of the domestic nuisance, owing to these influences being counterbalanced by the large number of new houses erected during the post-war years, the vast majority of which use raw coal in at least one fire.

3: That the solution of the nuisance does not rest mainly upon the passing of laws and the development of new fuels and appliances, but upon more difficult and obscure factors. A tremendously strong tradition in favour of the coal fire has to be broken down, and in its place created an eagerness for clean and smokeless fires, as well as a disgust with smoke, such as already exists with regard to other forms of filth.

The formation of this public opinion requires a widespread and intensive propaganda, and this is the work that the National Smoke Abatement Society is setting out to do. At present its activities are sadly limited owing to an entirely inadequate income. It is therefore seeking and gaining new allies, representing various interests and points of view. Among those co-operating with the society there should surely be all the architects of the country; for what suffers more from the ravages of smoke than the works of the architect, and, also, who can do so much to bring about rational methods of heating as can the architect?

But most architects are strangely apathetic—they prefer, like others, to toast their toes at the open fire. May I, however, take this opportunity of asking them to consider what opportunities they have of helping to do away with this plague? May I also suggest that those who are interested should assist by becoming members of the National Smoke Abatement Society? The writer will be happy to supply all particulars, on request, at 71 Eccleston Square, Westminster, S.W.1.

ARNOLD MARSH
(GENERAL SECRETARY, NATIONAL SMOKE ABATEMENT SOCIETY)

Housing: The Counter Revolution

SIR,—Will you kindly accord me the hospitality of your columns to urge upon all local authorities the importance of maintaining good standards of planning, design, construction and amenities in their housing and rehousing schemes. This vital question of standards was considered at the National Conference of Local Authorities, recently held at Blackpool, under this Council's auspices, at which upwards of 700 delegates from all parts of Great Britain were present.

The attention of the Conference was drawn to a report of the National Federation of House Builders, extracts from which have recently appeared in a number of journals. That report invites the Government to introduce a new scheme of State assistance for houses erected by private enterprise. It also contains some suggestions for reducing the standard that has been generally adopted, and recommends, *inter alia*, that a density of at least twenty cottages to the acre should be allowed in industrial areas, and that rows of eight houses would be economical. This style of building, it is stated, "provides for greater warmth or 'cosiness' in the house; is more neighbourly, and gives many people a greater feeling of security."

I am glad to be able to state that the National Conference, by an overwhelming majority, decided to give no countenance to any proposals for reducing the standards of British homes erected with the Government's assistance. Experience has shown conclusively that with a layout plan adapted to twelve houses to the acre, no additional expense is involved in maintaining this density. Moreover, a tenant having a garden sufficient to be worth cultivation may easily derive produce worth 1s. a week or more from his garden, and is therefore in a better position to pay the rent for his dwelling, while securing all the added amenities free of cost. The report further draws attention to the high cost of road-making, apparently overlooking the fact that increased density of building must tend to increase rather than diminish the cost of roads. Many economies, both in width and character, which may be secured with low density, would be impracticable with the higher density.

Seeing that the houses to be built are expected to have a useful life of at least sixty, and probably a hundred, years, during which period standards of housing may be expected to rise rather than fall, it would surely be very improvident for local authorities to build, or in any way encourage others to build, houses that are below the minimum standard which has already been generally recognized.

May I remind your readers that the "Tudor Walters Committee," appointed by the Local Government Board in 1917, confirming the advice of previous Committees, unanimously reported in 1918 that:

> The number of houses should not exceed twelve to the acre in urban and eight to the acre in rural areas. If the layout plan is carefully prepared to provide suitable building plots and frontage, no addition to the cost of development need generally be involved on account of such limitation.

This statement has been amply proved by experience, and it is a source of satisfaction that, during the period of great housing activity, both by municipal and private enterprise, and despite the abnormally high cost and many other post-war difficulties, the standards prescribed by public and technical opinion as essential to national health and well-being have been generally maintained.

It is recognized, of course, that exceptional circumstances may justify special variations, and particularly varying sizes of individual gardens, but this affords no reason for any general increase of density. In all cases the maximum average of twelve houses to the acre in urban areas should be adhered to for new developments. If in any particular instance there may be reasons why the private gardens should be made smaller, then the area devoted to open space and playgrounds should be proportionately increased. Surely, sir, the nation has already paid, and is yet to pay, a sufficiently heavy price for the ignorance and folly which led to much of the house building of low standard during the nineteenth century.

The slum areas, and the still vaster areas of dreary industrial dwellings, the removal or improvement of which forms one of our hardest and most expensive tasks today, are directly due to just such short-sighted advice as to the cutting down of the standard of housing. Would it not be sheer madness to repeat this mistake? While there is little likelihood that the Minister of Health will entertain suggestions such as have been put forward, the report of the Federation of House Builders indicates that there are still those who cannot distinguish between cheapness and economy; and lest members of local authorities should be misled by such mistaken suggestions, it is desirable that any proposals to sacrifice the minimum standards, which have been established with great effort, should receive the unqualified condemnation of every housing reformer.

JOHN G. MARTIN
(SECRETARY, NATIONAL HOUSING AND TOWN PLANNING COUNCIL)

New Ways in Architecture

SIR,—It is evident that Mr. Hugh Macintosh and myself are travelling along the same road and towards the same objective, i.e. some form of control of building development, particularly in respect of street architecture.

One may enunciate proposals, including the invocation of the R.I.B.A., the allied societies and Parliament in co-operation, in an endeavour to achieve the object. However, the rock upon which these proposals are likely to be wrecked, when principles are applied to particular cases, is that of vested interests.

To be effective, more so than the admirable scheme advanced by Mr. Longden, the conditions must be as adamant as the Building Bylaws, and subject to similar sanctions in respect of non-compliance. In addition to medals for the delightful building, I would advocate fines for the delinquent.

I am whole-heartedly in sympathy with Mr. Macintosh's earnest plea for the suppression of the leprous and exotic travesties upon a noble art, and I would like to see a practical outcome to this plan. Although I expressed myself as being sufficiently old-fashioned to respect tradition, I have nevertheless marched with the times as regards the requirements of modern buildings.

It is the exaggerated functionalism with which I quarrel. I maintain that all modern requirements, which are largely matters of planning, can be achieved in a building expressing its function without sacrificing tradition in the fundamental elements of its composition.

HARRY HOLLAND

Architects' Fees

SIR,—Counsel's opinion on the above subject, reported on page 840 of your issue for December 3, lets us know where we now stand in this matter. It seems extraordinary that the Lord Chief Justice should give such a ruling as quoted.

What protection has a Member of the Institute if the law court takes up this attitude? It is curious that lawyers generally consider themselves qualified to assess the value of the work of a profession of which they are almost entirely ignorant. Every architect of experience knows that in the case of work abandoned, all the thinking part is very often done as fully as if the work were actually under way, and drawings are often no test or standard of the amount of time and labour which has been spent on preliminaries.

In the provinces this is a most serious problem, especially in these days when so much work is cancelled after the finished sketches and estimates have been prepared.

It is time the Institute took steps to protect its members so that the courts should recognize the scale which has been arrived at after long experience, and which is obviously reasonable where the work has been carried out in an honest and conscientious manner. Neither lawyers nor laymen generally have the faintest idea of the processes which work has to go through before it can be presented to the non-initiated.

I do not see why the courts should dispute the scale of the Institute when they accept the evidence of experts in other professions and occupations, in questions regarding the value of work done.

X. X.

Bungalophobia

SIR,—I hope the sense of my letter which appeared in your issue for November 26 was not misconstrued by Mr. Casson, or any other readers, as a result of the curious omission of the words " in the district of Oxfordshire " (" in which I am at present living ") in the setting up of the first paragraph.

I am glad to be able to say that I do not, and would not, live in the structure referred to at whatever cost—that is the very point !

I also notice that the compositor set up a description of his own invention under the illustration accompanying my letter. " Before " and " After," as I left it was, in my opinion, sufficient to indicate that the left-hand illustration depicted an ordinary disused railway carriage as dumped on the site, and that the right-hand one illustrated what quite an unskilled (if ingenious) owner made of it under the advice given him by the local Town Planning Committee. The roof obviously is of thatch, and not of asbestos slates as you state. The metal casements are of course out of proportion, but considering they are old ones re-used, and the whole job cost the man something under £50, it is not a bad effort at providing an emergency dwelling without any undue disfigurement of the countryside.

THOMAS THOMSON

[For any embarrassment occasioned by the omission referred to by our contributor from a somewhat ambiguous sentence, our apologies are due. The caption, however, was not the invention of the compositor; nor, in it, did we make any reference to the roof, so obviously of thatch.—ED., A.J.]

Preservation of Old Buildings

SIR,—It is gratifying to all concerned to read the approval expressed in your columns of our efforts on behalf of the Anglo-American Oil Company to preserve No. 25, the corner house of Queen Anne's Gate, London, that delightful relic of Queen Anne. The fact remains, however, that many similar eighteenth-century buildings, valuably representative of the best standards of our traditional architecture, are still being regarded as derelict and demolished to the grievous loss of the community.

It is not generally realized that eighteenth-century houses possess many advantages essentially modern in character. Their simplicity of external treatment is fully in accordance with present ideas, and the ample window space makes them eminently light and habitable when adapted to the current requirements.

H. H. WIGGLESWORTH
A. G. R. MACKENZIE

Rebuilding of Middlesex Hospital

SIR,—It is an extraordinary thing that one of the physicians of the Middlesex Hospital should complain that in the rebuilding of this hospital no provision has been made for open-air and sun treatment, and that this hospital should not have the advantages which Hippocrates had 2,000 years ago at the island of Cos.

In my opinion, hospitals should not be rebuilt at enormous cost in cities, but be moved out to bungalows, fitted with open-air verandas, placed in the country. A receiving station suffices in the city, and motor ambulances to convey the patients. By such means hospitals could be rebuilt perhaps for the value obtained for the city site, anywhere for far less cost, and we know that open-air treatment is the best.

(SIR) LEONARD HILL

Mr. E. J. Whitwell has removed his offices from 62 Orchard Road, Erdington, to 5 The Drive, Hunton Hill, Erdington, Birmingham.

LAW REPORT

DISPUTE OVER ANTIQUE PANELLING AND PERIOD MANTELPIECES

Speyer v. *Phillipson and others. Chancery Division. Before Mr. Justice Luxmoore*

THIS was an action which raised an interesting question as to the ownership of valuable antique panelling of oak and pine—the oak panelling being of the Stuart period and dated 1620, and the pitch pine panelling dated about 1720—and period mantelpieces.

The plaintiff was Mr. E. Speyer, of Mansfield Street, Portland Place, W., and he sued Mrs. M. C. Phillipson, Mr. H. Phillipson, Mr. J. D. Arthur and Mr. A. S. N. Horn, as executors of the late R. H. Phillipson, for a declaration that the panelling in a suite of rooms on the third floor of 74 Portland Place was in the nature of a landlord's fixture, or an improvement or addition to the premises within the covenant of a lease, the reversion of which was now vested in the plaintiff. Plaintiff also asked for an order for the delivery up of the panelling at the end of the lease, together with certain period mantelpieces.

Mr. Macaskie, K.C., for the plaintiff, said the question was whether the panelling put into the flat by the tenant had become landlord's fixtures. Defendants denied that the panelling had been permanently fixed so as to become part of the structure, or that its removal would injure the premises, and they claimed the right to remove the panelling and mantelpieces. Counsel said his contention was that the panelling and mantelpieces had become landlord's fixtures, as the inference to be drawn was that they were a permanent and substantial improvement to the flat. Counsel mentioned that period mantelpieces had been placed in some of the rooms and the rent of the flat was £900 per annum.

Mr. Robert Peel, K.C., for the defendants, argued that the panelling and chimneypieces were not landlord's fixtures, as defendant only desired to enjoy it while he remained in the flat.

Evidence was given by Mr. J. Naylor, F.R.I.B.A., that the panelling was worth £5,000 and would appreciate in value; and by Mr. C. E. Ballard, of Messrs. Stair and Andrew, Ltd., antique dealers, that Mr. Phillipson purchased the panelling for £2,100 in 1920.

Mr. Justice Luxmoore gave judgment for the defendants, holding that the panelling and chimneypieces were removable by the defendants.

His lordship said the question he had to decide was the purpose for which the panelling and mantelpieces were put in. The plaintiff argued that these were embellishments attached to the structure in such a way that they became landlord's fixtures. Here annexation was only one of the matters to be considered, and it was anything but the most important in his view. This panelling and these mantelpieces were valuable chattels and were acquired by the late Mr. Phillipson for the decoration of his flat, which he held on a term for twenty-one years from 1912. His lordship thought it would be a little surprising for a man to spend so much money as Mr. Phillipson did in panelling which would pass to the landlord after he had enjoyed it for a few years. His lordship had had before him a report from which it appeared that the structure of the rooms had not been altered by what the tenant had done. Taking it that Mr. Phillipson's intention was to beautify his flat, he could not come to the conclusion that the panelling and chimneypieces were landlord's fixtures. In his view they were tenant's fixtures and removable as such.

The plaintiff further submitted that the panelling and chimneypieces constituted improvements and additions to the premises and therefore passed to the landlord. But to his mind that meant improvements and additions to the structure. In that case it would not include anything in the nature of tenant's fixtures. Under these circumstances he held that the plaintiff's claim failed, and he entered judgment for the defendants, with costs.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Ancient Monuments Bill

THE Ancient Monuments Bill has been introduced into the House of Lords. This is the measure, foreshadowed by Mr. Lansbury, to afford greater protection to Hadrian's Wall and other ancient monuments.

Preservation of Buildings

At question time in the House of Commons Mr. Mander asked what steps were being taken to preserve buildings of historical or architectural interest under the Ecclesiastical Commissioners' control; and what buildings had been scheduled under the Ancient Monuments Act during the last three years.

Mr. Middleton said that the buildings of historical or architectural interest under the Ecclesiastical Commissioners' control were such as were on estates owned by the Commissioners. As owners, the Commissioners took reasonable care for their preservation. Buildings, etc., on the Commissioners' estates scheduled under the Ancient Monuments Act during the last three years had been: Cawood Castle, Yorkshire; certain barrows (near Wells), Somerset; Roman station (Vinovia), Binchester, Durham.

Reconstruction at Whitehall

Captain Eden asked the First Commissioner of Works whether it was the intention of the Government to proceed with the reconstruction at Whitehall; and what would be the cost of the work.

Mr. Lansbury said that the answer to the first part of the question was in the affirmative. In regard to the second part, the cost of the work was estimated at £2,215,000.

Calton Hill Site

Mr. McKinlay inquired of the First Commissioner if he had definitely abandoned the Calton Hill site in Edinburgh for the erection of new Government offices; and, if so, would he approach the Glasgow Corporation with a view to securing a Glasgow site.

Mr. Lansbury said that the answer to the first part of the question was in the affirmative, and to the second part in the negative.

Protection of Ecclesiastical Buildings

Sir John Withers asked the First Commissioner whether he was satisfied that the undertaking given by the authorities of the Church of England that they would protect their ancient buildings, as the result of which ecclesiastical buildings in use were excluded from the protection of the Ancient Monuments Act, 1915, was being carried out; and whether, in view of the extended facilities for the demolition of churches given by the Union of Benefices Measure, 1923, he would consider the desirability of extending the Act to include ecclesiastical buildings.

Mr. Lansbury said he had considered this question and had come to the conclusion that it would be inadvisable to extend the Act so as to include ecclesiastical buildings in use.

No Grant for Quarry Owners

Major Owen asked the Minister of Agriculture whether he was aware of the refusal of the Commissioners of Crown Lands to recommend a grant to the Amalgamated Slate Association, Ltd., and that this refusal involved the placing of approximately 300 men permanently out of employment; and whether, in view of their circumstances, he would make recommendations to the Commissioners to reconsider their decision.

Dr. Addison said that the Commissioners of Crown Lands were aware of the misfortunes which had befallen certain quarries in Caernarvon, which had been worked for many years.



Looking from the loggia, across the fountain court, towards the music-room. The loggia ceiling is executed in unsawn pine logs ; the hanging lantern is of brass, burnished on the inside, and has a verdigris finish on the outside.



A corner of the music-room. All the woodwork, including the floor and the ceiling beams and fillings, is bleached a silver-grey colour. The door on the right leads to the hall ; that on the left to the small bolt hole to the library. The cupboard conceals a loud speaker.



"Marylands," Hurtwood, Surrey.]

The double window at the south end of the music-room is divided by an octagonal Irish green marble column, and gives on to a balcony overlooking the south front.

[*From* The Architectural Review.]

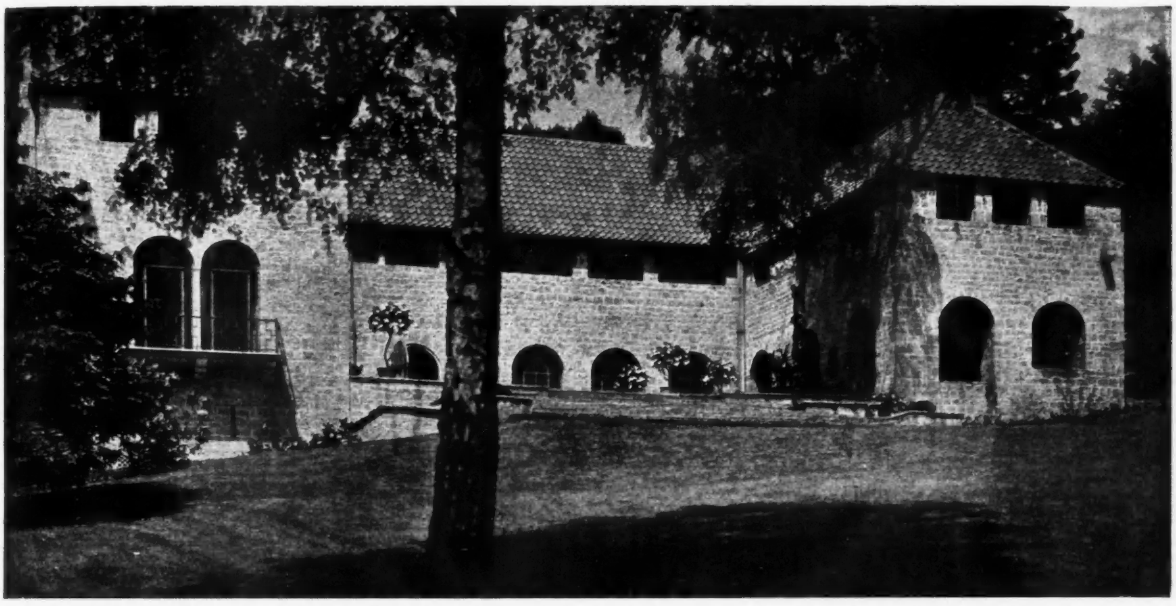
A view of the fountain court at night, looking towards the loggia. In the foreground is seen a part of the illuminated blue mosaic pool and one of the jade frogs which spurts water into it.



[By Joseph Hill.

A COUNTRY HOUSE AT HURTWOOD, SURREY

DESIGNED BY OLIVER HILL

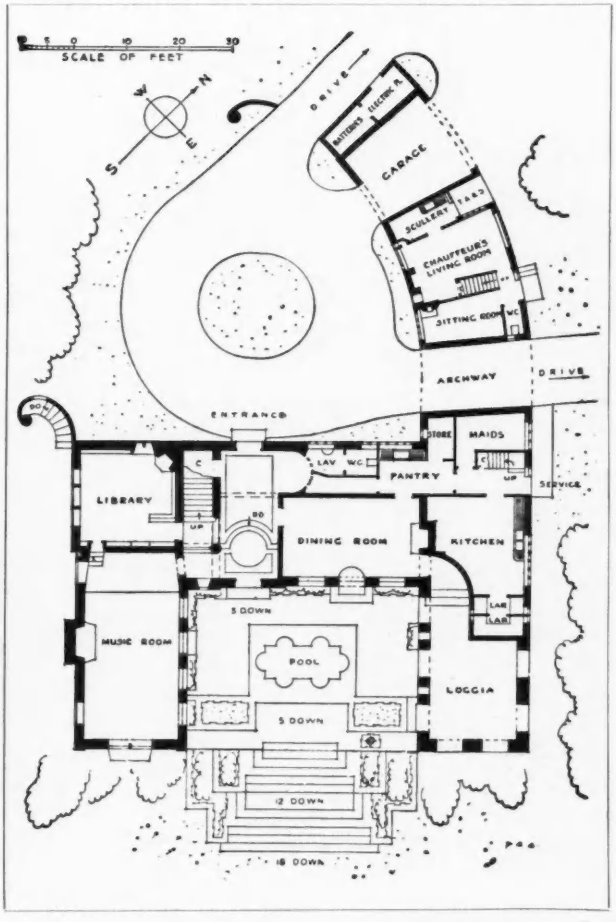


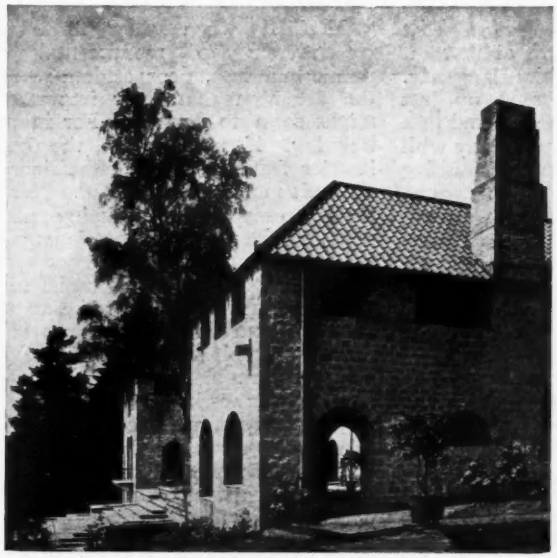
[By Joseph Hill.

The south front. The house has been built almost exclusively of local stone, which quickly weathers to a warm grey colour; the roof is covered with Swedish jade green glazed pantiles. The steps in the centre of this façade lead up to the fountain court, on the right of which can be seen the silver birch tree incorporated in the scheme.

"MARYLANDS," Hurtwood, Surrey, illustrated on this and the facing page, is one of the many interesting features of the current issue of *The Architectural Review*. As will be seen from the accompanying plan, the house possesses, in addition to the more usual accommodation, a music room and a fountain courtyard overlooking the garden. Here, the silver birch tree previously existed and has been happily incorporated in the scheme.

The architect's layout plan of the house and grounds. The garage and chauffeur's living quarters are situated on the right of the entrance drive.





This view, taken from the south-east, affords a glimpse of the fountain court, looking through the loggia.

"Marylands," Hurtwood, Surrey.]

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THE SPECIFICATION WRITER

On the Job: Demolition

BY THE GUV'NOR

In the last Specification Writer (issue for November 26) specifying for demolitions was discussed. This was for theory. For practice, now, we offer readers observations actually made on the job. Incidentally, it is the first of a series of notes from the same hand which are to deal with several of the important early phases of building works.

IN these days the erection of a large building in London almost invariably involves the removal of out-of-date structures prior to commencing operations. House-breaking or demolition has now become a highly-specialized business. It is usually defined as breaking down the structure to the ground level and gutting all internal walls, leaving only such as are acting as abutment in holding up earth or adjoining properties.

Owing to the immense amount of transport required over a short period, it has gone beyond the reach of the ordinary builder to do this work economically; also an entirely different class of men are employed under different rules and with special insurance schedules, keeping these men and the ordinary builders' men quite separate.

These specialist contractors usually combine the business of house-breaking with that of excavation and the supply of materials. By this means they are able to keep their transport fully employed and have a ready market for such old materials as may be fit for re-use, e.g. bricks if sound may be cleaned, or if broken can be crushed and used as hardcore or as aggregate for concrete where permissible.

Whilst demolition is looked upon as providing the lowest type of employment connected with building, at the same time present-day problems require the use of scientific methods and apparatus, and these are often brought into use. The pneumatic drill is now used extensively when substances will not yield readily to the ancient and still very efficient mattock (without which no photo of demolition in progress is complete). The oxy-acetylene blowpipe is brought into use for cutting up steel girders or trusses.

Another phase of this work worthy of consideration is the increasing tendency to keep the lower floors of a building open to the public while pulling down above. "Business as usual" is all very well, but the risk is too great and should *not* be allowed. Lives have already been lost, and no guarantee can be given against repetition of these accidents.

The trouble is, it is almost impossible for anyone to ascertain the exact condition of existing walls. In the case of very old property, which may have changed hands several times, it is quite common to find that cross-walls have been altered from time to time; shifting some openings, filling up others, without due attention to bonding, so that the wall has become just a mass of small pieces, which, as soon as floors are disturbed, topple down.

I have seen cases where cross-walls have been entirely cut away through a story and bressummers placed over, having their ends supported in quite a different manner than the designer planned, and concentrating the load in a position quite inadequate and ready to collapse unexpectedly during operations.

The great bugbear is the party wall. The prevailing practice of rebuilding the external walls whilst still retaining the old party wall condemns itself. The act of thicknessing the wall by means of a thin skin of new work to allow of additional height being carried only aggravates the danger, as it is not infrequently found that what appears on the face of it to be a sound modern wall is really only a mass of bricks which have reverted to their natural clay! It will often be honeycombed by flues not properly filled in or bonded and held from collapsing only by the aforesaid thin skin of new work, and is thus incapable of standing alone when the lateral support of the floors is withdrawn.

It is here that another branch of the housebreakers' business comes in—that of shoring. Shoring is a very important and delicate operation if done properly. Shores should be tightened up just sufficiently to take the weight and that is all. A stroke or two too many with the wedging up may result in pushing the wall over.

After the structure has been cleared of all fittings and gutted of roof, partitions, etc., but not floor joists or cross-walls, any shoring required should be set out. It is usual to strut the ends of the party walls on the front and rear elevations as a matter of course. As regards the party walls, these have to be dealt with on their merits and taking into consideration the work proposed to be done on them. No wall should be underpinned to any depth without being shored temporarily.

If care is used, it is possible to place the shoring in such a way that it will not have to be touched until finally struck. Lack of foresight in placing shoring correctly may result in heavy charges later for moving or replacing it, involving a certain amount of risk to the wall besides.

The architect should be able to indicate the position of any steelwork likely to be fouled by the shores, which may be erected usually to clear such positions without loss of efficiency, an ordinary position being about 3 ft. in from the building face. Intermediate spacing in the case of fairly good walls should be about 12 ft. apart and with doubtful or poor walls 8 to 10 ft. apart. New walls should not need shoring except when underpinning extensively.

Another consideration is that the sole-pieces of the shoring sets should be laid at the depth it is proposed to excavate and pits dug for the purpose if necessary; otherwise it will happen that they will either have to be undercut and strutted up or left resting on a small dumpling which may crumble and leave the shore a dead weight on the wall, tending to drag it over instead of giving it support.

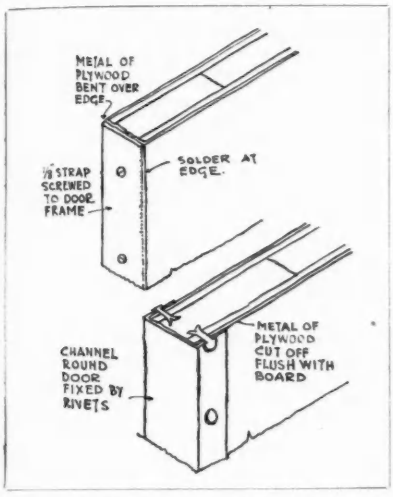
SOME interesting particulars of tests of composite hollow-brick and concrete beams have recently been carried out in America. Beam tests were carried out on from two to six cells of ¾ in. wall thickness, square or rectangular in cross-section, up to 12 in. by 12 in., inserted between stronger concrete ribs 4 in. thick. They indicated that one row of bricks was equivalent in resisting shear to a concrete rib of the same depth and having a width of from 1·6 in. to 2·4 in. The researches are the subject of paper No. 181 of the United States Bureau of Standards.

The Cost of Doors

EXCEPT when they form the entrance to monumental or public buildings, doors seldom receive the attention that their importance might seem to demand. For in any building, if not always the chief interior feature, certainly the door is the unit most often repeated. Nevertheless, except for specifying panel doors for the more aristocratic parts of the house and other well-known types in a gradually descending social scale down to the ledged entrance to the tool shed, no serious effort has been made to exploit the possibilities of the various forms.

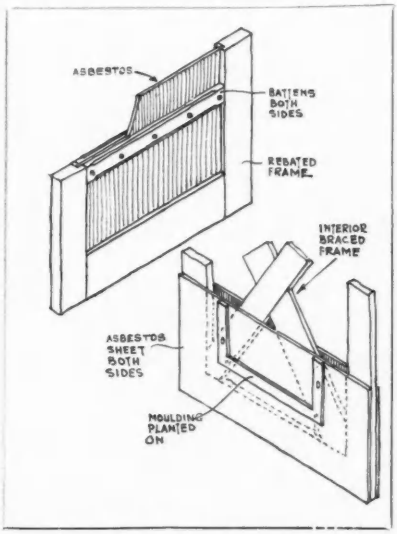
In domestic work one naturally thinks of a door as a piece of joinery, but there are other materials besides plain wood on the market today that are well worth a trial. One of the most decorative of these consists of a thin sheet of metal on a backing of plywood. One method of making this into doors

is to apply a sheet (which is manufactured in sizes 7 ft. by 3 ft.) to each side of a thin pine or deal framing. The fixing may be by means of ornamental-headed screws, and the metal may be left projecting beyond the



edges of the sheets sufficiently far to be bent round the edges of the frame at top and sides.

Various methods are adopted for securing the two edges of the metal, the most common being an $\frac{1}{8}$ in. metal strip fixed all round the edge of the door. Alternatively, one side only is left projecting and bent right round the frame, but this necessitates a mitre at the angles or on the face of the door. The makers have a third method, which is called "sealed edges," and gives a flush surface and a neat joint. Aluminium, owing to the lack of a reliable solder, cannot be finished in



this way. In specifying metal-faced plywood it is well to remember that the weak spot is the exposed edge of metal and wood, and wherever used this should be made waterproof. Ordinary butts can be used to hang the door, but the lock should be a rim lock.

Another type can be built up by using plywood panels metal-sheeted both sides in an ordinary panelled door. Mouldings round the panels are unnecessary, and an aluminium finish on these with the stiles and rails painted a lacquer red makes a very decorative feature. Such a door can be fitted with a mortice lock, and the cost is no more than the ordinary panelled door, the metal-plywood costing about 10d. per foot super.

A cheaper type of door may be made by using asbestos sheets screwed between two light framings. These were tested shortly after the war by the Department of Scientific and Industrial Research during the building of experimental cottages at Amesbury, Wilts, and proved satisfactory, but here again rim locks only can be fixed.

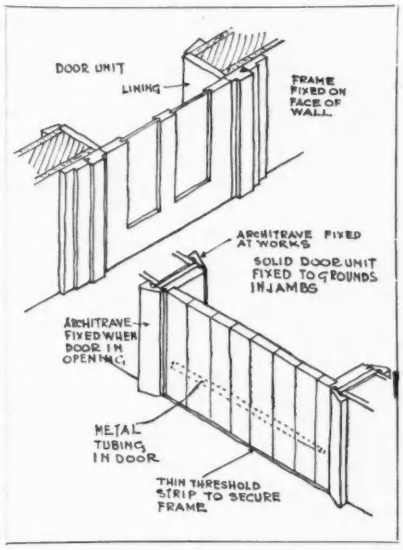
Another type is produced by framing a door with $1\frac{1}{2}$ in. frame rebated to a $\frac{3}{16}$ in. sheet of asbestos board, the horizontal rails being $\frac{1}{2}$ in. and double screwed to each other through the sheets. Another door of this type may be made by covering a $\frac{7}{8}$ in. framing with wall-board, securing this to the frame with a fillet nailed in the form of a panel. Asbestos can also be used in this manner, but it is not so satisfactory, as the edges are brittle and liable to chip unless protected. Both these types of doors are slightly more expensive than imported Swedish doors, but have the advantage of being British-made.

Some doors are manufactured complete with frames and fittings for building direct into the openings. In theory this effects a considerable saving of cost, but as the openings may not vary more than $\frac{1}{4}$ in., builders when estimating for this type of door sometimes charge additional labour to the bricklayer for special care required in forming openings. These solid doors are reinforced by steel tubing, and when making comparisons in price their thickness of $1\frac{1}{4}$ ins. must be remembered.

A $1\frac{1}{2}$ in. square-framed door complete, made by the builder, costs approximately £2 10s., and the average price for a $1\frac{1}{4}$ in. door supplied complete is about 70 per cent. of this, exclusive of extra labour in bricklayer.

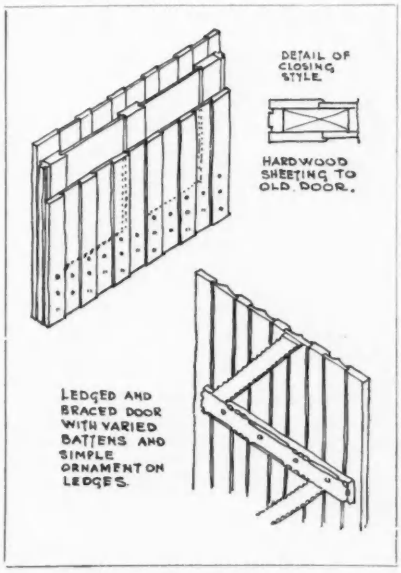
Most of these doors have a standard shape of 2 ft. 8 ins. by 6 ft. 8 ins., but a type is manufactured standardized at 6 ft. 4 ins. in height, and pleasing both in proportion and design. A novel method of fixing them on the face of the wall instead of fitting the frame into the opening has been evolved, and this gets over the difficulty of exact bricklaying dimensions. The cost is approximately 60s. complete.

In reconditioning houses of the last century, the Victorian four-panel door defies all attempts to bring it into harmony with any modern scheme of



decoration, and it is usually scrapped in despair. This is a pity, as the doors are as a rule of excellent workmanship. Where the jamb linings are sufficiently deep the door may be sheeted with thin hardwood battens, the stiles planed down and covered with a hardwood strip. The old mortice lock can be refixed with a longer spindle and a new type of handle. The cost of this thin sheeting will be approximately equal to that of a new first-quality deal door.

Several variations may be made with the common ledged and braced door,



now relegated to humble service in outbuildings. The monotonous V-joint and bead can be changed into a moulded lamb's tongue or other type,

and with a little ingenuity and variety in the thickness of the alternate battens a pleasing effect can be obtained at little extra cost. Smaller and thicker sizes can be substituted in place of the ugly 4 in. by 1 in. ledges, and by following the practice of the old wheelwrights some effective arris ornamentation may be done with the simple spoke-shave. A door so designed and picked out in colour in the manner of the old country farm wagon becomes a cheap and interesting feature. The Swiss have many traditional patterns made by simply cutting the edges of door braces that add enormously to the beauty of many humble doorways. The total cost of such a door is approximately £2.

Too often in confined spaces the opening of the ordinary door is a problem, and in some houses the landings are positively dangerous to the unwary. A solution might be found in adopting the door hinged at the centre as well as the side, which slides on a rod concealed in the door head, in the manner of the telephone cabinets in the Underground stations.

Locks and furniture are expensive items, and money might often be saved by considering whether it is necessary to be able to secure every door in a house from either side. In many rooms a bolt on one side with some simple form of ball catch is all that is required in addition to a wooden knob or handle. Butt hinges in all sizes are the cheapest means of hanging ordinary doors, but for heavy varieties the old pin hinge minimizes leverage, and is probably a sounder method than the cross garnett. PANTILUS

A BULLETIN has been published by the Department of Scientific and Industrial Research (H.M. Stationery Office, price 3d. net) to present in brief form the more important conclusions and recommendations which it has been possible to make as a result of experimental work carried out at the Building Research Station on methods of bonding new concrete to old. The bulletin is written by Norman Davey, B.SC., A.M.INST.C.E., who rightly points out that the evils attendant upon the careless bonding of new concrete to old are not always fully appreciated. Poor bond between two sections of a structure may render it incapable of satisfactorily resisting the stresses set up by the differential shrinkage movements of the material on either side, or movements due to settlement. Faulty joints made in work from day to day may weaken the whole structure. Moreover poorly constructed joints may become susceptible to the percolation of moisture which on freezing may cause disintegration of the concrete; and chemicals in solution are liable to penetrate the faulty joints, causing disintegration in the concrete mass and efflorescence which may disfigure the structure.

LITERATURE

THE HONEYWOOD SETTLEMENT

IT will be no news to readers of THE ARCHITECTS' JOURNAL that Karshish did find the second Honeywood File. When the first file concluded with the acknowledgment of Sir Leslie Brash's appreciation of his architect's services we all must have felt that the last word had not been written, but perhaps feared that Karshish might have neither the time nor patience to wade through Spinlove's filing cabinet to see how he fared through the perilous passage of accounts and settlement. Indeed, knowing its contents, Spinlove might have been reluctant to disclose them to the critical eyes of his friend. But Karshish has a kindly touch, and the lapse of four years since the job was cleared up probably helped matters. It is possible also that Mrs. Spinlove (*née* Brash) may have had some part in it. She at any rate possessed qualities of humour and good sense that her husband lacked. And so it comes about to our great delight and instruction that *The Honeywood Settlement* (File No. 2 and final) after running serially in these pages, is in our hands in book form. And what a feast of good things it provides!

With *The Honeywood File* and its present companion volume Karshish has provided architects, both young and old, with the two most valuable guide-books on professional practice which have been published. Herein are set out the many pitfalls which encompass the path of the general practitioner and, what is of even more value, the manner of their avoidance. So reasonable and just are the author's commentaries that the reader scarcely realizes what a wealth of wisdom underlies them. Into every page of the volume the author has imparted a

Liverpool Cathedral, as it will appear. Architect: Sir Giles Gilbert Scott. (Photo: Stewart Bale.)



[*From* The Future Development of South-West Lancashire.]

delightful touch of humour—Grigblay on Drains, and Bloggs on Flues, are valuable contributions to technical literature. How familiar to the older reader is the sequence of events, how vividly do they recall to his mind the early days of practice—the pathetic attempts to "sugar the pill" for the client; the terror of that bogey of dry-rot!

These two volumes should be included in the list of books recommended by the R.I.B.A. for students, and no client, present or prospective, should be without them—certainly no practising architect. The Architectural Press is to be congratulated on persuading Karshish to contribute the second file, and upon its enterprise in publishing it in book form. SYDNEY TATCHELL

The Honeywood Settlement. By Karshish (H. B. Creswell). London: The Architectural Press. Price 7s. 6d. net.

St. Matthew's Church, Clubmoor, Liverpool. (Photo: E. C. Hardman.)



[*From* The Future Development of South-West Lancashire.]

A NEW REGIONAL REPORT

THIS volume contains the report of the South-West Lancashire Regional Planning Committee, and indicates the lines of the future development of a region which includes the Port and City of Liverpool, the great manufacturing districts of St. Helens and Widnes, the residential town of Southport and many other smaller towns, with an area of about 300 square miles of intensively cultivated agricultural land.

In the preparation of the volume an attempt has been made to produce a readable and not too technical study of the problems of town development and the preservation of the countryside. It follows the system now becoming generally recognized as typical in this kind of literature, in that it opens with a brief introductory chapter, giving the main objectives of the scheme and topographical as well as historical notes as aids to the visualization of the district as it is at present. The maps and views are of great assistance to the reader, and well chosen and very clearly reproduced.

Chapter II deals with zoning, but covers a great deal more ground than would usually be anticipated under this heading, the statistical examination with its tables and diagrams being followed first by definite allocations for residential and industrial purposes, and after that by plans illustrating appropriate methods for laying out residential areas.

In the next chapter we have communications. These, in turn, are dealt with on a logical system, involving first an examination of the general requirements of the area, then passing on to the more intimate needs of each district, and finishing with detailed studies, layout planning and construction, with supplementary notes on transport by road, rail, and canal.

The open spaces, present and possible, have obviously been very carefully surveyed with a view to suitability and to the demands of the populous areas around them. The plan shows a well-devised series of parks, recreation grounds and parkways, the lines of streams dictating many of the latter, while the feasibility of dealing with spoil heaps, etc., has also been considered.

Under the heading "Architectural Amenity," such questions as the control of the arrangement and design of buildings are dealt with, together with those raised by practical needs, such as electrical conduits, petrol pumps, and other services. Historic monuments are scheduled, and the preservation of scenic beauty is not overlooked.

Reclamation, coast erosion and drainage are of exceptional importance in this area, and have consequently received particularly close consideration. The recommendations on these, and indeed on all the points covered, though naturally on general lines such as are appropriate in a regional report, are so clearly thought out as to ensure their being of very great value to the authorities on whom the development of the programme will devolve.

H. V. LANCHESTER

The Future Development of South-West Lancashire. University Press of Liverpool and Hodder and Stoughton. Price 10s. 6d. net.

QUESTIONS THAT ARISE

Clarifying Water

W. L. L. writes: "*I have been consulted regarding an open-air bathing pool. On inspecting the water, which is to be taken from a brook close to the site, I find, at times, this runs rather dirty. I should be obliged for suggestions as to rough filtering this water. The funds will not allow an elaborate and costly system.*"

The treatment necessary to clarify the water will depend on the nature of the discoloration. If the bed of the brook is sandy, the particles of sand will settle out as a deposit by passing the water through a sedimentation tank. Should, however, the discoloration be due to clay, the particles will be in such a fine state of subdivision as to be difficult to remove without the use of a coagulant.

A sample of the dirty water should be placed in a tall glass jar, and should it clear within 15 minutes, a properly-designed sedimentation tank will suffice. If the water does not clear, the dirty appearance is possibly due to clay which is in a very finely divided or colloidal state. The particles of colloidal matter are kept in suspension by minute electrical charges which repel them from each other, and it requires a chemical coagulant to neutralize these electrical charges.

Take another sample of the water in the glass jar, and after dissolving a small quantity of sulphate of alumina in some clear water, thoroughly mix a few drops of this solution with the sample. Now observe the rapidity or otherwise of the coagulation and settlement, which will depend on the chemical properties of the water. If carbonates are absent, coagulation will not be satisfactory, and it will be necessary to add some chalk.

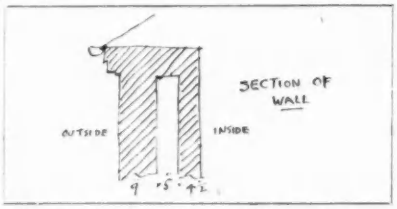
The quantity of chemical to be added must be determined after an analysis of the water has been made, and will depend on the amount and nature of the impurities present. Too much chemical will result in further coagulation taking place after filtration. After coagulation the water can be passed rapidly through a coarse-grained sand or silica grit filter, either by gravitation, if the head of supply is sufficient, or it may be pumped through a pressure filter.

If the discoloration is due to peat, a similar treatment to that just described will clarify it, but it will first be necessary to add some chalk or lime to neutralize the acidity of the water.

N. H.

Hollow Walls

B. C. D. writes : "*I am about to erect a building, the walls of which are to be faced, both inside and out, with rustic brown facing bricks. The outer and inner walls*



will be 9 ins. and 4½ ins. thick, respectively. I wish to use white ½-in. joints both on the exterior and interior of the building. It was the intention to build the walls in white Portland cement, and to form a stuck joint at the same time as the building of the wall. In doing this the wall may be soiled with the cement, however. Also, we do not want the brickwork to show efflorescence. What is the most satisfactory way to gain the desired effect ?"

I do not see any difficulty in building with white joints, either putty or white cement and white sand, with either of which pointing would be unnecessary. I take it stuck joint, means struck joint, and this, of course, will be made in course of building.

There is no reason why the bricks should be stained by the putty or cement mortar, but some bricklayers keep their work cleaner than others do; nor should there be any reason for fearing efflorescence if suitable sand and bricks are used. This point might be raised with the firm supplying cement before this is specified. N. L.

SOCIETIES AND INSTITUTIONS

ARCHITECTS AND ADVERTISING CAMPAIGNS

THE consideration of a Press publicity campaign by direct advertisement was introduced by Mr. S. Phillips Dales, F.R.I.B.A., at a recent meeting of the West Essex Chapter of the Essex, Cambridge and Hertfordshire Society of Architects.

Mr. Dales said that there were many ways in which individual architects could advertise and be of value to the whole cause of architecture. They could instruct the great mass of the unthinking public, who never considered the work of the architect, and who did not and could not distinguish between the good and the bad architect.

At present trade was bad, and the architectural profession was sharing in the depression. It was an opportune moment for advertising. The policy of advertising was a good one.

During the discussion which ensued, Mr. Percy Haywood, F.R.I.B.A., questioned the wisdom of the experiment, and suggested it would have to be referred to the R.I.B.A. Mr. D. N. Martin-Kaye, A.R.I.B.A., on the other hand, supported the idea.

Mr. J. R. Leathart, F.R.I.B.A., also spoke in favour of the motion, but mentioned that a somewhat similar movement that had been set on foot in America had met with only slight support. A difficulty would be the elimination of favouritism. All jobs, he said, coming into the Chapter would be domestic jobs, and the great difficulty would be to allocate jobs to architects. He thought the R.I.B.A. should conduct the campaign.

Mr. Alan Fortescue, A.R.I.B.A., said it seemed to him that architects did not display their wares sufficiently.

Captain C. Pugh-Morgan said that to have any ordered campaign of publicity it was essential that plain, straightforward advertising should be adopted.

After the discussion, a resolution "That this meeting deems it desirable that the society should promote a Press publicity campaign by direct advertisement" was carried.

THE ÆSTHETICS OF ENGINEERING

The second of the series of public lectures arranged by the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch) was given recently at the Engineers' Institute, Cardiff, by Mr. H. V. Lanchester, F.R.I.B.A., who spoke on "The Æsthetics of Engineering."

Mr. T. Alwyn Lloyd, F.R.I.B.A., who presided, referred to the close association of the lecturer and the city of Cardiff. The standard set by Messrs. Lanchester and Rickards in the design of the City Hall and Law Courts had been a particularly high one which the architects of the subsequent civic buildings in Cathays Park had strived to maintain.

The lecturer referred to the conflicting claims of fundamentalism and traditionalism in engineering work. He indicated that a purely logical solution of problems in structural design often achieved beauty, whereas efforts to embellish iron bridges by the addition of so-called architectural details usually led to disaster. He dealt with the beauty of the motor car, the aeroplane and the ship, and remarked that the objections to electrical pylons was, in his opinion, overdone, the pylons being, from the æsthetic point of view, comparable to the old windmills.

The lecture was illustrated by many interesting lantern slides.

A vote of thanks to the lecturer was proposed by Dr. Cyril Fox, Director of the National Museum of Wales, seconded by Mr. F. J. Thomas, F.I.O.B., and supported by Messrs. Norman Edwards and Percy Thomas, F.R.I.B.A.

ANNUAL DINNER OF THE DEVON AND CORNWALL ARCHITECTURAL SOCIETY

The first annual dinner of the Devon and Cornwall Architectural Society was held at Exeter on Thursday, November 27. The president, Mr. John Bennett, presided.

Following the loyal toast, "The Royal Institute of British Architects" was proposed by Mr. Percy Morris, who welcomed Sir Banister Fletcher, P.R.I.B.A., and pointed out that it was largely due to Sir Banister's instrumentality that nineteen of the city churches had been saved for the nation.

Sir Banister Fletcher, in reply, said that one of the chief objects of the R.I.B.A. was to secure the loyalty and discipline of the allied societies to the parent body. The Institute was rapidly making history. By the new bylaws practically every qualified architect had a right to enter the ranks of the Institute, which was something for which the Institute had been fighting for years. Within a few months they would be able to say truthfully that if there was a practising architect not within the ranks of the Institute he was not qualified in the highest sense. This would mean the protection of the public and, consequently, the confidence of the public.

In regard to regional planning, Sir Banister said the new Town Planning Bill which he hoped would shortly be enacted would enable communities to protect themselves against unsightly elevations. People should not be allowed to put up monstrosities which affected the well-being of the people who had to look at them.

Alluding to certain types of modern architecture, Sir Banister deplored that which he termed the "tiger" type: that which had no regard or consideration for the public or for surrounding buildings. The word "functional" had been used a great deal in connection with ultra modern design, but it should be remembered that a building had never been successful unless designed to suit the functions required. It was not a new word. Sound, reasonable, well-conducted and well-appointed buildings had gone to make architecture what it was and they must do their best to continue on such lines.

Sir James Owen, submitting the toast of the "Devon and Cornwall Architectural Society," said it was strange to think that the majestic progress of architecture had been marked by a continuous process of trial and error and, once elementary facts had been established, the architect with admirable ingenuity and taste set about converting stark utility into decorative loveliness so alluring that we were apt to forget that the primary purpose of those arches and buttresses was stability, not beauty.

Mr. Bennett, responding, briefly touched upon the history of the Society and expressed his pleasure at seeing present that evening a few of those members who had founded the Society forty years ago.

"Our Guests," the last toast, was proposed by Mr. H. Victor Prigg.

The Mayor of Exeter (Mr. C. J. Newman), responding, appealed to architects, when consulted by clients wishing to have premises reconstructed or rebuilt, to advise those clients to adhere to the particular traditions of a city or town.

The Mayor of Plymouth also spoke.

MODERN DUTCH ARCHITECTURE

"Modern Dutch Architecture" was the subject of a lantern lecture given by Mr. Stanley J. Wearing, F.R.I.B.A., at a meeting of the Norfolk and Norwich Association of Architects, held in the Stuart Hall, Norwich.

Mr. Wearing began by referring to the older architecture of Holland. He commented on the main features, such as the stepped, shaped gables, the tall windows and ornamental doorways, illustrating his remarks with many lantern slides of old buildings.

Coming to modern architecture, the lecturer said that most of it was post-war, but there were already before the war a number of buildings which showed a complete departure from tradition.

Under the building bylaws, every city and village had its æsthetic committee on which sat architects who had the right to censor on grounds of good taste. They could reject a plan because it did not harmonize with its neighbour, either new or old. The employment of an architect was obligatory. Each town had its register in which was entered every old house that had any architectural merit, and the municipal committee forbade alterations or demolition. The new dwellings, mostly built by the municipality or by co-operative associations, enjoyed a State subsidy on condition that they made no profit. The Dutch Government had given great assistance to private enterprise, but it fixed conditions. The individual had no prescriptive rights as to where or how he should build. The "Committee of Æsthetics" was authorized to supervise schemes both as regards layout and individual designs.

The Deputy Lord Mayor (Mr. T. Glover) proposed the vote of thanks, which was seconded by Mr. H. E. Witard.

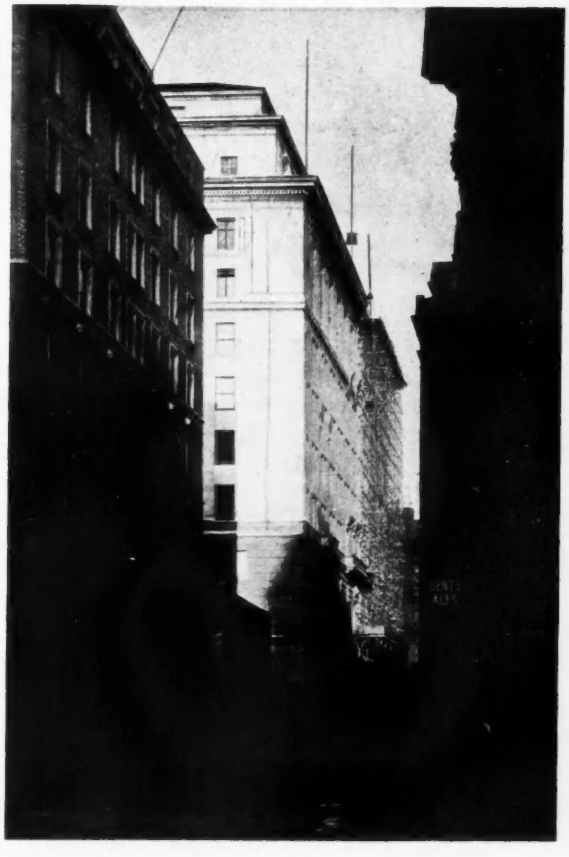
R.I.B.A. ELECTION OF STUDENTS

The following Probationers have been elected as Students of the R.I.B.A. :

Arthur, K. H. (Glasgow School of Architecture).
Ashton, R. (Architectural Association).
Brandon-Jones, J. (Architectural Association).
Brandt, J. B. (Architectural Association).
Brown, A. K. (Armstrong College, Newcastle-upon-Tyne).
Brown, G. H. (Northern Polytechnic).
Cairns, J. B. (Glasgow School of Architecture).
Cardew, G. E. (Northern Polytechnic).
Coates, U. A. (Liverpool School of Architecture).
Devereux, A. H. (University of London).
Fairweather, W. J. (Glasgow School of Architecture).
Fernandes, J. B. (Sir J. J. School of Art, Bombay).
Gascoigne, A. R. (Architectural Association).
Haigh, M. W. (Architectural Association).
Hart, R. S. (Cambridge University).
Hewitson, T. T. (Liverpool School of Architecture).
Heymann, H. B. (Architectural Association).
Hicks, J. K. (Architectural Association).
Hill, F. O. E. (Northern Polytechnic).
Hill, L. H. (Edinburgh College of Art).
Hutcheson, W. R. (Architectural Association).
Inglis, C. W. A. (R.W.A. School of Architecture, Bristol).
Judd, K. W. (Northern Polytechnic).
Kent, E. C. (Architectural Association).
Lindsay, R. G. (Glasgow School of Architecture).
Marsh, S. G. R. (Architectural Association).
Marwick, T. W. (Architectural Association).
May, P. J. (Northern Polytechnic).
Mewton, G. H. (Special Exemption).
Mitchell, A. H. (Special Exemption).
Molteno, M. C. (Architectural Association).
Morena, N. B. (Sir J. J. School of Art, Bombay).
Norie, D. M. (University of London).
Parker, R. G. (Liverpool School of Architecture).
Pearce, P. F. (Special Exemption).
Pym, J. (Cambridge University).
Ryder, M. J. (Architectural Association).
Skinner, R. T. F. (Architectural Association).
Smith, D. R. (Glasgow School of Architecture).
Smith, L. S. (Northern Polytechnic).
Thomas, M. P. H. (R.W.A. School of Architecture, Bristol).
Thomas, M. H. (R.W.A. School of Architecture, Bristol).
Thuell, D. A. (R.W.A. School of Architecture, Bristol).
Ullman, E. D. (Architectural Association).
Whalley, J. M. (Glasgow School of Architecture).
Wingate, M. M. F. (Northern Polytechnic).
Wormald, E. (Liverpool School of Architecture).
Wright, H. M. (University of Cambridge).

GOTHIC ARCHITECTURE IN FRANCE

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts, London, on Wednesday last, described the extraordinary developments of Gothic architecture as seen in the cathedrals of France. In analysing the architectural character of the style, he explained how the heavy and sombre Romanesque gave way to the light and graceful Gothic, and how this energetic and restless style of architecture was well suited to the French



A photographic study of new buildings in Brunswick Street, Liverpool. (Photo : E. C. Hardman.)

[*From* The Future Development of South-west Lancashire. *For review of this book see page 883.*]

national character, which revelled in solving the problem of producing buildings in equilibrium.

THE BRITISH EMPIRE EXHIBITION

A detailed description of the British Empire Exhibition, Wembley, was given by Mr. W. T. Bowman, O.B.E., at a meeting of the Incorporated Association of Architects and Surveyors.

Mr. Bowman said that the British Empire Exhibition (1924) invited the attention of the whole world, because it was a comprehensive survey of a great achievement in art, science and industry.

It was the industrial event of the post-war world, the first clear expression of the hope that, after the disasters and horrors of the Great War, we might enter, with confidence, upon an era of peace. Its main object was to show to each member of the great family of the British Empire, and to the world at large, what was being done in the development at home and of the various lands beyond the seas, and the enterprise and resource of the peoples living under the protection of the British flag.

The Exhibition was a complete encyclopædia of modern industry with working illustrations, or, as H.R.H. the Prince of Wales described it, "The Empire's Shop Window."

THE HENRY SAXON SNELL PRIZE

The subject given for essays in competition for the Henry Saxon Snell Prize, 1930, was "Improvements in the Sanitary Provisions of Schools." Seventeen essays were submitted. The adjudicators did not consider that any of the essays were of sufficient merit to deserve the prize offered, and the Council of the Royal Sanitary Institute has decided to withhold the award on this occasion. Acting on the advice of the adjudicators, the Council, however, has awarded a sum of twenty guineas each, being part of the amount of the prize offered, to Mrs. Alice L. Baker and Mr. L. M. Savage.

The three essays sent in under the mottoes, "Ubique," "Pro Patria" and "Savant" were commended.

GLASGOW SCHOOL OF ARCHITECTURE

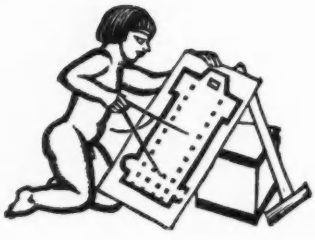
The diplomas, certificates, and prizes gained by students of the Glasgow School of Architecture for last session were awarded to the successful students at a gathering held in the Royal Technical College, Glasgow. Mr. Robert Robertson, chairman of the joint-committee controlling the school, presided, and addresses were given by Sir John Stirling Maxwell, Bt., and Mr. John Watson, A.R.S.A.

The chairman, in referring to the trend of modern architecture, said the architect was limited by the present economic conditions. They were largely under the domination of Government control, and so they had the experience of seeing town-planning areas covered with houses made on the modern system of mass production. He was sure, however, that in the interests of the profession itself, if for no other reason, they looked to the time when the economic conditions would change and allow the architect and the artist free scope to make developments.

COMPETITIONS OPEN

December 25.—A prospectus giving full particulars of the international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia, was recently issued. The theatre is to be erected in the centre of Kharkov, on the site of the present Comsomolskv Square (Young Communist Square), and will contain a mass musical stage, and seating capacity for 4,000 persons. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be sent to the Kharkov Town Council on or before December 25. Copies of the prospectus are obtainable from the Embassy of the Union of Soviet Socialist Republics,

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THE ARCHITECTS' JOURNAL

Harrington House, 13 Kensington Palace Gardens, London, W.8.

January 7.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, Deputy Secretary of the Automobile Association; and Walter Groves, Editor of *The Motor*. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors, and at the discretion of the Council of the Association. In addition a prize of 10 guineas and two prizes of 5 guineas each will be awarded to laymen for the best suggestions submitted with or without sketches. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: January 7, 1930.

January 10.—The Bermondsey B.C. recently invited competitive designs for a proposed new medical clinic in Tower Bridge Road, S.E. Premiums: £250, £150 and £50 for first, second and third place, respectively. Designs should be submitted to E. Goff Clark, Town Clerk, Town Hall, Spa Road, Bermondsey, by January 10, 1931.

January 31.—The Coventry Corporation invites architects to submit competitive designs for a new Hospital for Infectious Diseases, proposed to be erected on a site at Pinley, about 1½ miles south-east of Coventry. Architects competing must be established in private practice. Assessor: E. Stanley Hall, M.A., F.R.I.B.A. Premiums, £300, £200 and £100, for designs placed first, second and third, respectively. Conditions of the competition and site plan may be obtained from Frederick Smith, Town Clerk, Council House, Coventry, until January 31. Deposit £1 1s. Latest date for submission of designs: April 30, 1931.

February 1.—The Norwich Corporation invites architects practising in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

April 1.—An international competition for the development of the uses of aluminium and its alloys, open to inventors of any nationality, is to be held annually by the International Aluminium Bureau. The competition will be divided into two sections. All proposals will be allocated to the appropriate section by an adjudicating committee comprised of five members. The prizes to be awarded are 25,000 French francs for the entries under Sections A (methods of working or using the metal) and B (manufacture of articles therefrom) respectively, and 50,000 French francs to the author of a suggestion which has exceptional interest or value under either section. Entries may be submitted between January 1 and April 1, 1931. Further particulars are obtainable from the Bureau International de l'Aluminium, 23 bis, Rue de Balzac, Paris, France.

No date.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. The competition will be assessed by a jury comprised of ten members. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Latest date for submission of designs: January 15, 1931.

THE ARCHITECTS' DIARY

WEDNESDAY, DECEMBER 10

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of photographs of buildings visited on the A.A. Excursion to Sweden and Denmark. Until December 20.

CHARTERED SURVEYORS' INSTITUTION. Annual Dinner of the Quantity Surveyor Members, to be held at the Connaught Rooms, Great Queen Street, W.C.2. **7.30 p.m.**

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Whitefriars Glass Works (Messrs. James Powell and Sons), The Stained Glass Studios, 100 Wigmore Street, W.1. Another visit to the same works will be made on December 11. **11.30 a.m.**

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Ordinary Meeting. "Persian Textiles." By A. L. B. Ashton. **8.30 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Informal Meeting. "Atmospheric Pollution Due to Combustion of Fuel, and Methods of its Prevention." By John S. Owens, M.D., A.M.INST.C.E. Chairman: Sydney B. Donkin. **6 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: The Gothic Period—Rheims Cathedral." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

UNIVERSITY OF LONDON, University College, Gower Street, W.C.1. Last of three public lectures on "Stockholm and Its Environs." By A. M. Wijk. (Lantern Illustrations.) **5.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the College of Technology, Manchester. "Methods of Securing Masonry to Framed Buildings." By E. G. Warland, A.INST.S.E. **7 p.m.**

EXHIBITION OF MODELS OF OLD LONDON. At the Golden Cross Hotel, Strand, W.C.2. The models are the work of John B. Thorp. **2.30 p.m.**

THURSDAY, DECEMBER 11

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Science Standing Committee. 4.30 p.m. (Final and Special Examinations, December 3 to 11.) **4.30 p.m.**

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS. At the University, Sheffield. "Maltese Architecture." By Professor L. P. Abercrombie, M.A., F.R.I.B.A. (Tea, 5.30 p.m.) **6.15 p.m.**

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "Old English Furniture and the Men Who Made It." By Ingleson C. Goodison. **7.30 p.m.**

INCORPORATED INSTITUTE OF BRITISH DECORATORS. At Painters' Hall, Little Trinity Lane, E.C.4. "The Woman's Viewpoint in Decoration." By Mrs. Grace Lovat-Fraser. (Refreshments, 9.30 p.m.) **8 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "The Æsthetic Side of Structural and Constructional Engineering." By Howard Robertson, F.R.I.B.A. South Wales and Monmouthshire Branch. Visit to works of Braithwaite & Co. (Engineers), Ltd., Newport. **6.30 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. Dundee Sub-Centre. At the University College, Dundee. "Electricity and Mining—A Story of Progress." By A. V. Reis. **7.30 p.m.**

INSTITUTION OF WELDING ENGINEERS. At the Institution of Mechanical Engineers, Storey's Gate, Westminster, S.W.1. "The Fabrication of Plant in Acid-Resisting Steels." By C. C. Hall.

SOCIETY OF ANTIQUARIES, Burlington House, Piccadilly, W.1. "Recent Discoveries in York Minster and Ripon Minster." By C. R. Peers, C.B.E. **8.30 p.m.**

INSTITUTE OF PATENTEES. At the Caxton Hall, Caxton Street, Westminster, S.W.1. "The Inventor and His Employment." By Professor P. M. Baker. **8 p.m.**

FRIDAY, DECEMBER 12

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Honorable Society of Gray's Inn, Holborn, W.C.1. **3 p.m.**

TOWN PLANNING INSTITUTE. At the Caxton Hall, Caxton Street, Westminster, S.W.1. "Twenty-one Years of Town Planning in England and Wales." By G. L. Pepler. **6 p.m.**

FACULTY OF ARCHITECTS AND SURVEYORS. Fourth Annual Dinner to be held at the Hotel Metropole, Northumberland Avenue, W.C. 6.45 for 7.15 p.m. **6.45 p.m.**

ILLUMINATING ENGINEERING SOCIETY. Visit to the Chiswick Works of the London General Omnibus Co., Ltd., at 4 p.m. A meeting will be held in the Lecture Theatre of Holophane, Ltd., Elverton Street, Westminster, S.W.1, at 6.30 p.m., when a paper on "Glasses for Use with Invisible (Ultra-violet and Infra-ray) Rays," illustrated by demonstrations, will be read by Dr. S. English. **4 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Western Counties Branch. At the Merchant Venturers' Technical College, Unity Street, Bristol. "A Comparative Study of Retaining Walls." By E. S. Andrews, B.SC., M.INST.C.E. 7.30 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. Discussion on "Some Problems in the Design of Roof Members," to be opened by A. C. Ansell, B.SC. 7 p.m. **7 p.m.**

BOROUGH POLYTECHNIC, Borough Road, Southwark, S.E.1. Exhibition of Students' Work. 6 to 9 p.m. (Saturday, December 13. 2 to 9 p.m.). **6 p.m.**

SATURDAY, DECEMBER 13

Sunrise, 7.57 a.m. Sunset, 3.51 p.m.

LONDON SOCIETY, Lancaster House, St. James's, S.W.1. Visit to the Royal Mews, Buckingham Palace, S.W.1. Meet at the Royal Stables Entrance, Buckingham Palace Road, S.W.1. **2.30 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS, North-Eastern Centre. At the Armstrong College, Newcastle-on-Tyne. Informal Discussion on "Heating in the Home." **7 p.m.**

MONDAY, DECEMBER 15

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Executive Committee. 4 p.m. Special General Meeting (Business). 8 p.m. **4 p.m.**

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Pantomime every evening until December 19 inclusive.

TUESDAY, DECEMBER 16

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, Sloane Street, S.W.1. Reception and conversazione by Alderman Culpin, L.C.C., M.T.P.I. **6 p.m.**

TOWER OF LONDON, E.C.3. "The Tower in Tudor Times." By Allen S. Walker. **11 a.m.**

WEDNESDAY, DECEMBER 17

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Pantomime Matinee, 2.45 p.m. (Evening Performance, 8.15 p.m.) **2.45 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: Fortified Towns, Castles, Hotels-de-Ville." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

THURSDAY, DECEMBER 18

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Literature Standing Committee. **4.30 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. Teesside Sub-Centre. At the Cleveland Technical Institute, Middlesbrough. "Surge Investigations on Overhead Line and Cable Systems." By S. W. Melsom, A. N. Arman, B.SC. (ENG.), and W. Bibby, B.SC. (ENG.). **7 p.m.**

FRIDAY, DECEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Finance and House Committee. **4.30 p.m.**

LONDON SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. "South Essex: Its Docks, Industries and Houses, London's Industrial Development." By Professor S. D. Adshead, F.R.I.B.A. (Illustrated by lantern slides.) Chairman: E. M. Dence. **5 p.m.**

SATURDAY, DECEMBER 20

Sunrise, 8.2 a.m. Sunset, 3.53 p.m.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. Visit to Partington Gas Works.

TUESDAY, DECEMBER 23

TOWER OF LONDON, E.C.3. "The Tower in Stuart Times and After." By Allen S. Walker. **11 a.m.**

WEDNESDAY, DECEMBER 24

R.I.B.A., 9 Conduit Street, W.1. Office and Library closed until December 27.

SATURDAY, DECEMBER 27

Sunrise, 8.5 a.m. Sunset, 3.57 p.m.

MONDAY, DECEMBER 29

R.I.B.A., 9 Conduit Street, W.1. First of two Christmas Holiday Lectures on Architecture for Boys and Girls. By the Hon. H. A. Pakington, A.R.I.B.A. (Also December 31.) **3.30 p.m.**

WEDNESDAY, DECEMBER 31

R.I.B.A., 9 Conduit Street, W.1. Christmas Holiday Lecture on Architecture for Boys and Girls. By the Hon. H. A. Pakington, A.R.I.B.A. **3.30 p.m.**

WEDNESDAY, JANUARY 7, 1931

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the Engineers' Club, Albert Square, Manchester. Paper by J. Theo. Halliday, F.R.I.B.A. **7 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. "Notes on the Theory of Radiant Heating." By C. G. Heys Hallett, M.A. **7 p.m.**

THURSDAY, JANUARY 8

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS. At the University, Sheffield. "Some New Buildings in Sweden and the Stockholm Exhibition." By E. R. Jarrett, A.R.I.B.A. (Tea, 5.30 p.m.) **6.15 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "Thames House." By R. Travers Morgan, A.M.INST.C.E. **6.30 p.m.**

Secretaries of architectural and allied societies are invited to forward particulars of their forthcoming meetings and visits for publication on this page. They should be addressed to the Editor at 9 Queen Anne's Gate, S.W.1.

OBITUARY

J. STARKIE GARDNER : 1844-1930

We regret to record the death of Mr. J. Starkie Gardner, the noted English metal worker and designer. He founded the metal works bearing his name in 1883, and was personal warrant holder to King Edward VII and King George V, as metal worker. Among his famous achievements were the wrought-iron gates and screens, which he designed and made, erected at Holyrood Palace as a memorial to King Edward VII. He also made and erected Victoria Gate, Hyde Park, London. At one time he was a member of the Antiquaries, Linnean and Geological Societies, and has written, lectured and read papers on antiquarian, geological and botanical subjects.

His publications included works on armour, enamels, old silver and fossil plants. He also wrote of iron; he wrote equally of the men who worked iron, and how and why they worked it. That is why his books are still so valuable. He retired from the firm bearing his name in 1923, after spending over half a century in prodigious efforts to advance the arts, wrought ironwork in particular. He died at Twyford Abbey, Park Royal, N.W.

TRADE NOTES

"God sends the meat," says a Spanish proverb, "and the Devil sends the cook." In pity on us, Dr. G. Dalen (a Nobel prize physicist) has invented the Aga Range.

It is claimed that its fuel consumption is anything from four to twelve times less than that of any other cooker of similar capacity, and that the normal annual consumption of coke in the Aga, burning incessantly, is 25 cwts., or about 22 cwts. of anthracite.

It is also claimed to be the only cooker in existence which provides continuous and absolutely automatic combustion, giving a variety of constant, specific oven and hot spot temperatures, thus dispensing with the need of any attention whatever beyond refuelling once and riddling of the ash grate twice in twenty-four hours. This automatic combustion is the fundamental feature of the Aga. The range is manufactured in one standard size, normally suitable for households of from two to twelve people. In experienced hands, however, it is said to be capable of more than this, and where it is a question of an exceptionally large household or of small hotels, schools and suchlike.

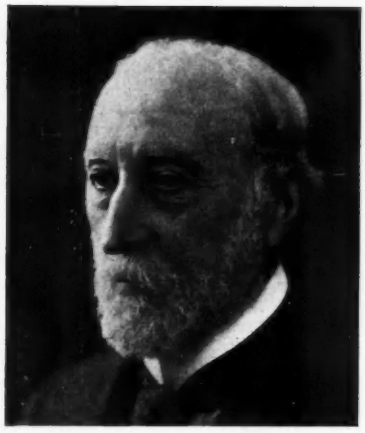
About nine gallons of almost boiling water is provided in a tank placed within the body of the cooker, and can be drawn off as required from a tap placed just above the ashpit door.

Its appearance is clean and attractive. As it is finished at the front and sides in cream enamel and on the top in black enamel, it requires no black-leading, nor in fact any sort of polishing. It is claimed that no sooting occurs, that there is no smell, and that the cleanest of kitchens and cooking conditions generally are assured with the minimum amount of trouble.

The sole agents and distributors of the Aga Cooker are Bell's Asbestos and Engineering Supplies, Ltd., Bestobell Works, Slough, Bucks.

*

No effort has been spared by the General Electric Co., Ltd., to make their new catalogue on electric light fittings thoroughly up to date and representative of period and modern design. Many hundreds of fittings, such as pendants, brackets, electroliers, ceiling fittings, standards and other lighting devices are included. It is probably the most complete catalogue of its kind ever issued. In the introduction it is stated that the designs have been created as the result of the closest possible collaboration between recognized experts in lighting and art, and may therefore be taken as being representative of the best in lighting practice. The fittings illustrated are suitable for every system of electric lighting, and offer a wide choice of finishes and decorative styles. All the illustrations are reproduced from photographs or drawings of the actual fittings listed. Sizes are indicated either by scale or dimensions, and colour-plate examples of certain typical fittings of their class are included to convey some general impression of the high-grade finish, which the firm claim is so distinctive a feature of the whole range. Where fittings of special or distinctive design are required, the General Electric Co., Ltd., place the services of their fittings design and illuminating engineering department at the disposal of clients. Realizing the value of display and demonstration, the firm have arranged attractive and comprehensive exhibits of electric light fittings at their principal showrooms, Magnet House, Kingsway, London, W.C.2, and also at each of their numerous branch showrooms through out the United Kingdom and abroad.



The late Mr. J. Starkie Gardner

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents, and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W. 1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C. 2. The price is 1s. each.]

SPECIFICATIONS PUBLISHED

338146. Abegg, W. A. Joint structure, and method of making same.

338162. Berry, A. F. Bricks, blocks, tiles and the like, and walls and roofs made therefrom.

338180. Harrison, S. M., and Powell, C. F. Plates for joint-making or like members for use in assembling the parts of huts, sheds, kennels, and suchlike structures.

THE BUILDINGS ILLUSTRATED

New Common Room at Rossall School (pages 863-867). General contractors, L. Brown and Sons, who were also responsible for the panelling. Sub-contractors : S. and J. Smethurst, brickwork; Lightfoot & Co., plumbers; Ogden and Sons, slaters; Arkwright Bros., plasterers; Ford and Ramsey, painters; F. M. Bell & Co., lifts; Riley, wood blocks; G. N. Haden and Sons, Ltd., heating; Drake and Gorham, Ltd., electric lighting; J. and H. Patteson, marble.

Orpheum Theatre, Finchley Road, N.W. (pages 868-871). General contractors, Sir L. Parkinson & Co., Ltd. Sub-contractors : Smith Walker, Ltd., steelwork; Frazzi, Ltd., concrete floors; Bath and Portland Stone Firms, Ltd., stone facings; Patent Victoria Stone Co., Ltd., staircases; Ragusa Asphalte Paving Co., Ltd., asphalt; Williams and Williams, Ltd., metal casements and skylights; John Blaikie and Sons, Ltd., heating and ventilation; Hoffmann Sprinkler Co., Ltd., fire appliances; Merryweather and Sons, Ltd., safety curtain; Gimson & Co., Ltd., counterweight gearing; Berkeley Electrical Engineering Co., Ltd., electrical installation; C. G. Newling & Co., electric light fittings; Waring and Gillow, Ltd., decorations, carpets and hangings; Garton and Thorne, Ltd., ornamental ironwork; Kingsmill Metal Co., projectors; W. W. Turner & Co., seating; G. Jennings, Ltd., sanitary fittings; Western Electric Co., talkie apparatus; W. G. Grotch, Ltd., fibrous plaster; Art Pavements and Decorations, Ltd., terrazzo paving; British Vacuum Cleaner and Engineering Co., Ltd., cleaning plant; Gas Light and Coke Co., cooking plant; Standard Insulator Co., Ltd., rubber flooring; John Compton Organ Co., Ltd., organ; Sage & Co., Ltd., shop fronts.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

Plans passed by the BARKING U.D.C.: 140 houses, Alfreds Way, for Suburban Developments (London), Ltd.; additions to Rippleside Dining Rooms (Old Mission Hall), for Mr. S. F. Troutt; additions to 354 Ripple Road, and house, Movers Lane, for Mr. J. P. Graffy; additions, 488 Gale Street, for Mr. N. Davies; factory, River Road, for Messrs. H. P. Orrock & Co.

Plans passed by the BECKENHAM Council: 121 houses, Clock House Road; house, Shortlands Road; house, Brabourne Rise; house, Foxgrove Road; house, Park Road; twelve houses, Eden Way; house, Hayes Way; four houses, Wickham Way; layout of new street, Ambleside Avenue, off Abbotts Way; four residential shops, Croydon Road; layout of new street, Kangley Bridge Road; conversion into three flats, 9 Brackley Road; private garages at Colesburgh Road, Glanfield Road, Arrol Road, Shortlands Road, Kingswood Road, Eden Park Avenue, Oakway, Barnfield Wood Road, St. James's Avenue; layout of five lock-up shops, Rectory Road; six residential shops, Upper Elmers End Road; house, Foxgrove Avenue; three houses, Monks Orchard Road.

The Essex E.C. has approved the purchase of a site for a school in Parsloes Avenue, DAGENHAM, at a cost not exceeding £3,500.

Plans passed by the KINGSBURY R.D.C.: 360 houses, Grove Park Estate, for Messrs. Hilbery Chaplin, Ltd.; 162 houses, Kingsbury Park Estate, for Messrs. F. G. Parsons and Sons; 134 houses and garages, Fairfields Estate, for Mr. P. H. Edwards.

The Works Committee of the LEWISHAM B.C. recommends that plans be approved as follows: Four houses, Beaufort Gardens, for Mr. G. T. Hartman; cinema, Sydenham Road, for Mr. A. C. Mathews; five houses, Woodcombe Crescent, for Mr. F. G. Barnes; reconstruction of "The Comet" off-licence, for Messrs. J. C. Cooke and Sons.

The SUTTON AND CHEAM U.D.C. has decided to erect thirty houses of the A.2 type.

SOUTHERN COUNTIES

Plans passed by the DOVER T.C.: Twelve houses, Brookfield Avenue, for Mr. H. F. Caspall; house and garage, Elms Vale Road, for the East Kent Building Co.; two semi-detached houses, Folkestone Road.

Plans passed by the HARTLEY WINTNEY R.D.C.: Alterations and additions to Longwater Farm, Eversley, for Major Sturmy Cave; bungalow, Cricket Hill, Yateley, for Mrs. C. Wood; showroom, Victoria Road, Cove, for Messrs. C. Yeomans and Sons; bungalow, Cove Road, Cove, for Mr. W. M. Jones; house, Cove Road, for Mr. H. T. Hill; bungalow, Church Road, Cove, for Mr. A. G. Edwards.

Plans passed by the HERNE BAY U.D.C.: Bungalow, Mickleburgh Avenue, for Capt. A. Davies; house, Pier Avenue, for Miss Flood; pair of semi-detached bungalows, Albany Drive, for Mr. J. W. Jordan; bungalow, Mickleburgh Avenue, for Mr. W. Kellett; bungalow, Central Avenue, for Mr. E. J. Line; bungalow, Mickleburgh Avenue, for Mr. G. Wilkie; bungalow, Sea View Road, for Mr. M. W. Pledge; house, Queensbridge Drive, for Mr. Campbell; garage, Beach Street, adjoining Water Company's office, for Mr. A. M. Hill.

At a meeting of the MARGATE Council, a plan showing proposed building plots on land abutting on to Botany Road, which complies with the requirements of the town planning scheme, and a plan of five shops and flats, proposed to be constructed on land on the north side of Upper Dane Road (opposite Dane pumping station), were approved.

It is understood that the directors of the Southern Railway have decided to proceed with the second stage of the SOUTHAMPTON Docks extension scheme, estimated to cost about £3,000,000, and the erection of a new graving dock capable of accommodating the world's largest liners. These two schemes are part of the £13,000,000 project decided upon some time ago, involving the reclamation of 407 acres of mudland in the bay on the River Test and extending westwards for over two miles from the Royal Pier to Millbrook Point.

SOUTH-WESTERN COUNTIES

Plans passed by the BARNSTAPLE T.C.: Bungalow, Crescent Avenue, for Messrs. Woolaway and Sons; forge, etc., Mill Road, for the Devon C.C.; garage, Park Lane, for Messrs. Cooke and Sons; alterations, Welfare Centre, Boutport Street, for the Barnstaple Long Bridge Charity; rebuilding of works, Queen Street, for Mr. J. C. Southcombe.

The NEWTON ABBOT R.D.C. has received sanction to borrow £425 and £650 to purchase sites for housing at Kingsteignton and Bovey Tracey.

At a meeting of the WINCANTON R.D.C. it was decided that application be made to the Minister of Health for sanction to the raising of a loan of £30,459 in respect of the houses now in course of erection in various parts of the district. Application is also to be made for sanction to erect six houses at Charlton Musgrove.

EASTERN COUNTIES

The WAYLAND (NORFOLK) R.D.C. has decided to purchase over half-an-acre of land at Banham for the erection of houses.

MIDLAND COUNTIES

The BIGGLESWADE R.D.C. has decided to make application to the County Council for the appropriate grant towards the cost of the proposed erection of twelve houses at Henlow, ten at Arlesey, and eight at Clifton.

Plans have been prepared by Messrs. Lanchester and Lodge for the first portion of the BIRMINGHAM hospitals centre at Edgbaston, on a site of 150 acres of land. The plans provide for a general hospital for 750 beds, a block of 100 beds for paying patients and a medical school for the University, which is close by.

A scheme for dealing with unhealthy areas in DERBY is being placed before the Minister of Health. It is estimated that the number of houses which should be demolished is 1,199, involving the displacement of 1,206 families. To provide for these it is suggested that 250 houses should be erected annually for the next five years.

The WANTAGE R.D.C. has approved plans of thirty-six houses proposed to be erected in the district, for submission to the Minister of Health.

The Staffordshire Education Committee has decided to provide a new senior school for 200 scholars at WATERHOUSES.

NORTHERN COUNTIES

The BURY General Purposes Committee has resolved to recommend the Council to approve a plan for altering the Town Hall to provide a council chamber, mayor's parlour, committee rooms, and to accommodate the town clerk's, engineer's and treasurer's departments. An offer has been received for the purchase of Heaton Grove and Gardens, which has been acquired by the Corporation.

A five-year housing programme for Manchester is outlined in the report of the Housing Committee, which is to be presented at the next meeting of the MANCHESTER City Council. The estimated number of houses to be built by the local authority during the next five years is 12,000, plus 1,500 working-class dwellings erected by private enterprise, making a total of 13,500. Of these, 6,000 new houses will take the place of those to be demolished in the areas scheduled for clearance or improvement.

The NEWCASTLE Housing Committee has decided to recommend the City Council to approve a programme of slum clearance and re-housing that will involve the construction of 2,182 additional dwellings within the next five years, the demolition of 1,272 unsatisfactory dwellings, and the transfer to better conditions of 9,604 people. The houses are additional to the 3,000 sanctioned in the new housing programme issued a few months ago.

Plans passed by the RUGBY U.D.C.: Eight houses, Northfield Estate, for Mr. R. Gardner; alterations to the Horse and Jockey Inn; additional lavatory accommodation at the Royal Oak; alteration to 4 Regent Place, for Mr. R. J. Phennah; additions to the Rugby Co-operative Society's shop, Clifton Road.

The SEDGEFIELD (DURHAM) R.D.C. has agreed to build houses in the district as follows: Ferryhill, twenty-eight; Trimdon, eighteen; Cornforth and Chilton, sixteen each; Fishburn, twelve; Sedgefield and Bishop Middleham, four each; and Bishopton, two.

The Bolton Housing Director has completed plans for the reconstruction of the steel-houses off Union Road, TONGE.

The WAKEFIELD City Council has decided that in the near future the proposal for the erection of almshouses for aged people, in connection with the late Lord Brotherton's bequest to Wakefield, should be considered.

A five-year building programme for 1,700 houses, estimated at £730,000, was decided upon at a joint meeting of the WALLASEY Corporation Housing and Health Committees. Of these houses 400 will be built under the 1930 Housing Act and 1,300 under the 1924 Wheatley Act.

It is understood that Lord St. David's Committee on Unemployment has made a grant of £14,200 to the WORTLEY (YORKS) R.D.C. towards the development of land for housing purposes.

SCOTLAND

The COATBRIDGE T.C. has approved a proposal to acquire a site for the erection of fifty houses.

Mr. Tom Johnston, M.P., Under-Secretary of State for Scotland, recently inaugurated one of the largest housing schemes that the burgh of HAMILTON has so far sponsored. The scheme is situated in the Glebelands to the east of Alness Street, and involves an estimated expenditure of £90,000. The project is intended to permit of the transference of 1,300 persons from insanitary houses in the burgh. Provision will be made for seventy-two two-apartment flats, 112 three-apartment flats, twenty-eight three-apartment cottages, and sixty-eight four-apartment cottages.

The Department of Health for Scotland has authorized the SALTCOATS T.C. to begin building seventy-two dwelling-houses in the public park, at a cost of £20,689.

The Education Committee of the STIRLING C.C. has approved an estimate of £174,000 for a building programme necessitated by the raising of the school age.

Plans were passed for the erection of four blocks of houses in Leighton Street, WISHAW, at a meeting of the Motherwell and Wishaw Dean of Guild Court. The blocks will consist of two-apartment and three-apartment houses.

IRELAND

Plans passed by the DUBLIN City Architect: Shops, with flats over, Cabra Road, for Mr. M. J. Lynch; two houses, Mount Prospect Avenue, for Mr. E. Casey; shop premises, Donnycarney, for Mr. T. Michael; shop, Georges Avenue, for Mrs. Casey; four houses, Grace Park Road, for Mr. D. Delaney.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A1	ABERDARE	S. Wales & M.	1 6½	1 1½
A1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2¼
A2	Addlestone	S. Counties	1 5½	1 1
A	Adlington ..	N.W. Counties	1 7	1 2¼
A	Airdrie ..	Scotland	*1 7	1 2¼
C	Aldeburgh ..	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2¼
B2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2¼
A2	Atherstone	Mid. Counties	1 5½	1 1
B2	Aylesbury ..	S. Counties	1 3½	11½
B2	BANBURY	S. Counties	1 4	1 0
B1	Bangor ..	N.W. Counties	1 4½	1 0¾
A1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2¼
B2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2¼
A	Barry ..	S. Wales & M.	1 7	1 2¼
B2	Basingstoke	S.W. Counties	1 4	1 0
A2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2¼
A2	Bedford ..	E. Counties	1 5½	1 1
A2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A2	Bewdley ..	Mid. Counties	1 6	1 1½
B2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2¼
A1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn ..	N.W.Counties	1 7	1 2¼
A	Blackpool ..	N.W. Counties	1 7	1 2¼
A	Blyth ..	N.E. Coast	1 7	1 2¼
B2	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2¼
A2	Boston ..	Mid. Counties	1 5½	1 1
A2	Bournemouth	S. Counties	1 5½	1 1
B2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2¼
A2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2¼
B2	Bridgwater	S.W. Counties	1 4	1 0
A1	Bridlington	Yorkshire	1 6½	1 1¾
A	Brighouse ..	Yorkshire	1 7	1 2¼
A2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2¼
B2	Brixham ..	S.W. Counties	1 3½	11½
A2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2¼
A	Burslem ..	Mid. Counties	1 7	1 2¼
A	Burton-on-Trent	Mid. Counties	1 7	1 2¼
A	Bury ..	N.W. Counties	1 7	1 2¼
A1	Buxton ..	N.W. Counties	1 6½	1 1¾
A2	CAMBRIDGE	E. Counties	1 5½	1 1
B2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2¼
A	Carlisle ..	N.W. Counties	1 7	1 2¼
B	Carmarthen	S. Wales & M.	1 5	1 0½
B1	Carnarvon ..	N.W. Counties	1 4½	1 0¾
A	Carnforth ..	N.W. Counties	1 7	1 2¼
A	Castleford ..	Yorkshire	1 7	1 2¼
B1	Chatham ..	S. Counties	1 4½	1 0¾
B1	Chelmsford	E. Counties	1 4½	1 0¾
A1	Cheltenham	S.W. Counties	1 5¾	1 1
A	Chester ..	N.W. Counties	1 7	1 2¼
A	Chesterfield	Mid. Counties	1 7	1 2¼
B2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2¼
B1	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2¼
A	Clydebank ..	Scotland	1 7	1 2¼
A	Coalville ..	Mid. Counties	1 7	1 2¼
A2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2¼
A2	Colwyn Bay	N.W. Counties	1 5½	1 1
A1	Consett ..	N.E. Coast	1 6½	1 1½
A2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2¼
A2	Crewe ..	N.W. Counties	1 6	1 1½
A2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2¼
A	Darwen ..	N.W. Counties	1 7	1 2¼
B2	Deal ..	S. Counties	1 4	1 0
A2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2¼
A	Dewsbury ..	Yorkshire	1 7	1 2¼
B	Didcot ..	S. Counties	1 5	1 0¾
A	Doncaster ..	Yorkshire	1 7	1 2¼
B2	Dorchester	S.W. Counties	1 3½	11½
A2	Driffield ..	Yorks	1 5½	1 1
A2	Droitwich ..	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2¼
A	Dundee ..	Scotland	1 7	1 2¼
A1	Durham ..	N.E. Coast	1 6½	1 1½
A2	EAST-BOURNE	S. Counties	1 5½	1 1¼
A1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2¼
A1	E. Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A2	Exeter ..	S.W. Counties	*1 6	1 1½
B2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0¾
A2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2¼
B2	Folkestone	S. Counties	1 4	1 0
A	Frodsham ..	N.W. Counties	1 7	1 2¼
B2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2¼
*B1	Gillingham	S. Counties	1 4½	1 0¾
A2	Gloucester ..	S.W. Counties	1 6	1 1½
A2	Goole ..	Yorkshire	1 6	1 1½
A2	Gosport ..	S. Counties	1 5½	1 1
A2	Grantham ..	Mid. Counties	1 5½	1 1
A1	Gravesend ..	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2¼
A	Grimsby ..	Yorkshire	1 7	1 2¼
B1	Guildford ..	S. Counties	1 4½	1 0¾
A	HALIFAX	Yorkshire	1 7	1 2¼
A	Hanley ..	Mid. Counties	1 7	1 2¼
A	Harrogate ..	Yorkshire	1 7	1 2¼
A	Hartlepools	N.E. Coast	1 7	1 2¼
B1	Harwich ..	E. Counties	1 4½	1 0¾
B2	Hastings ..	S. Counties	1 4	1 0
A2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A1	Heysham ..	N.W. Counties	1 6½	1 1½
A1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2¼
A	Hull ..	Yorkshire	1 7	1 2¼
A	ILKLEY ..	Yorkshire	1 7	1 2¼
A	Immingham	Mid. Counties	1 7	1 2¼
A2	Ipswich ..	E. Counties	1 5½	1 1
B2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2¼
A	KEIGHLEY	Yorkshire	1 7	1 2¼
B	Kendal ..	N.W. Counties	1 5	1 0¾
B	Keswick ..	N.W. Counties	1 5	1 0¾
A2	Kettering ..	Mid. Counties	1 6	1 1½
A2	Kidderminster	Mid. Counties	1 6	1 1½
B2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2¼
A2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2¼
A	Leek ..	Mid. Counties	1 7	1 2¼
A	Leicester ..	Mid. Counties	1 7	1 2¼
A	Leigh ..	N.W. Counties	1 7	1 2¼
B2	Lewes ..	S. Counties	1 3½	11½
A2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2¼
A	Liverpool ..	N.W. Counties	*1 9	1 3¾
A2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2¼
	London (12-miles radius)		1 8¼	1 3½
	Do. (12–15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2¼
A	Loughborough	Mid. Counties	1 7	1 2¼
A2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2¼
A1	MACCLESFIELD	N.W. Counties	1 6½	1 1¾
B1	Maidstone ..	S. Counties	1 4½	1 0¾
A2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2¼
A	Mansfield ..	Mid. Counties	1 7	1 2¼
B2	Margate ..	S. Counties	1 4	1 0
A2	Matlock ..	Mid. Counties	1 5½	1 1
A1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2¼
A2	Middlewich	N.W. Counties	1 6	1 1½
B2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2¼
A	Morecambe	N.W. Counties	1 7	1 2¼
A2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2¼
A	Nelson ..	N.W. Counties	1 7	1 2¼
A	Newcastle ..	N.E. Coast	1 7	1 2¼
A	Newport ..	S. Wales & M.	1 7	1 2¼
A	Normanton	Yorkshire	1 7	1 2¼
A1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2¼
A	North Shields	N.E. Coast	1 7	1 2¼
A2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2¼
A	Nuneaton ..	Mid. Counties	1 7	1 2¼
B	OAKHAM ..	Mid. Counties	1 5	1 0¾
A	Oldham ..	N.W. Counties	1 7	1 2¼
A2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0¾
A	PAISLEY ..	Scotland	*1 7	1 2¼
B1	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2¼
A2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2¼
A	Pontefract	Yorkshire	1 7	1 2¼
A1	Pontypridd	S. Wales & M.	1 6½	1 1½
A2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2¼
A	QUEENSFERRY	N.W. Counties	1 7	1 2¼
A2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0¾
A2	Retford ..	Mid. Counties	1 5½	1 1
A1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2¼
B1	Rochester ..	S. Counties	1 4½	1 0¾
A1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2¼
A2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2¼
A2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2¼
B2	Salisbury ..	S.W. Counties	1 3½	11½
A1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2¼
A	Sheffield ..	Yorkshire	1 7	1 2¼
A	Shipley ..	Yorkshire	1 7	1 2¼
A2	Shrewsbury	Mid. Counties	1 6	1 1½
A2	Skipton ..	Yorkshire	1 6	1 1½
A2	Slough ..	S. Counties	1 5½	1 1
A2	Solihull ..	Mid. Counties	1 6	1 1½
A2	South'pton	S. Counties	1 5½	1 1
A2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2¼
A	S. Shields ..	N.E. Coast	1 7	1 2¼
A2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2¼
A	Stockton-on-Tees	N.E. Coast	1 7	1 2¼
A	Stoke-on-Trent	Mid. Counties	1 7	1 2¼
B1	Stroud ..	S.W. Counties	1 4½	1 0¾
A	Sunderland	N.E. Coast	1 7	1 2¼
A	Swadlincote	Mid. Counties	1 7	1 2¼
A	Swansea ..	S. Wales & M.	1 7	1 2¼
B	Swindon ..	S.W. Counties	1 5	1 0¾
A1	TAMWORTH	N.W. Counties	1 6½	1 1½
B1	Taunton ..	S.W. Counties	1 4½	1 0¾
A	Teesside Dist.	N.E. Counties	1 7	1 2¼
B	Teignmouth	S.W. Coast	1 5	1 0¾
A	Todmorden	Yorkshire	1 7	1 2¼
A	Torquay ..	S.W. Counties	1 7	1 2¼
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0¾
A	Tunstall	Mid. Counties	1 7	1 2¼
A	Tyne District	N.E. Coast	1 7	1 2¼
A	WAKEFIELD	Yorkshire	1 7	1 2¼
A	Walsall ..	Mid. Counties	1 7	1 2¼
A	Warrington	N.W. Counties	1 7	1 2¼
A2	Warwick ..	Mid. Counties	1 6	1 1½
A2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2¼
B	Weston-s-Mare	S.W. Counties	1 5	1 0¾
A2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2¼
A	Wigan ..	N.W. Counties	1 7	1 2¼
B1	Winchester	S. Counties	1 4½	1 0¾
A2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2¼
A2	Worcester	Mid. Counties	1 6	1 1½
A2	Worksop ..	Yorkshire	1 5½	1 1
A1	Wrexham ..	N.W. Counties	1 6½	1 1½
A2	Wycombe ..	S. Counties	1 5½	1 1
B1	YARMOUTH	E. Counties	1 4½	1 0¾
B2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour ;* NAVVY, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day :

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5

DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.

IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6

DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.

LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* BRICKLAYER, 1s. 8½d. *per hour ;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see " Excavator " above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see " Excavator " above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, 1s. 8½d. *per hour ;* DO. *fixer,* 1s. 9½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone :			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see " Excavator," etc., above.			

HOISTING and setting stone, per ft. cube	£0	2	2

DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour ;* TILER, 1s. 8½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200 :

Portmadoc Ladies	£14	0	0
Countess	23	0	0
Duchess	32	10	0

Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms, per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9

In 4-ton truck loads, delivered Nine Elms station.

Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see " Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal :

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0

Green randoms	6	7	0
Grey-green do.	5	9	0
Green peggies, 12 in. to 8 in. long	4	13	6
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6

Vertical Tiling, including pointing, add 18s. 0d. per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See " Sundries " for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour ;* JOINER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds) :

7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33½ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals 1s. 8½d. per hour;* MATE, *do., 1s. 3½d. per hour;* ERECTOR, *1s. 8½d. per hour;* FITTER, *1s. 8½d. per hour;* LABOURER, *1s. 3½d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, *1s. 9d. per hour;* MATE OR LABOURER, *1s. 4d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	1	8
DO. ¾ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1½ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, *1s. 11½d. per hour;* LABOURER, *1s. 3½d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¼ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, *1s. 7½d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. *26 oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* "	0	2	3
DO. *6 ft. sup.* "	0	2	6
DO. *20 ft. sup.* "	0	3	1
DO. *45 ft. sup.* "	0	3	3
DO. *65 ft. sup.* "	0	3	5
DO. *100 ft. sup.* "	0	3	10
Rough plate, ⅛ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span 1*s.* 6*d.* to 2*s.* per ft.

LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0

Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, *1s. 7½d. per hour;* LABOURER, *1s. 3½d. per hour;* FRENCH POLISHER, *1s. 8½d. per hour;* PAPERHANGER, *1s. 7½d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall..	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

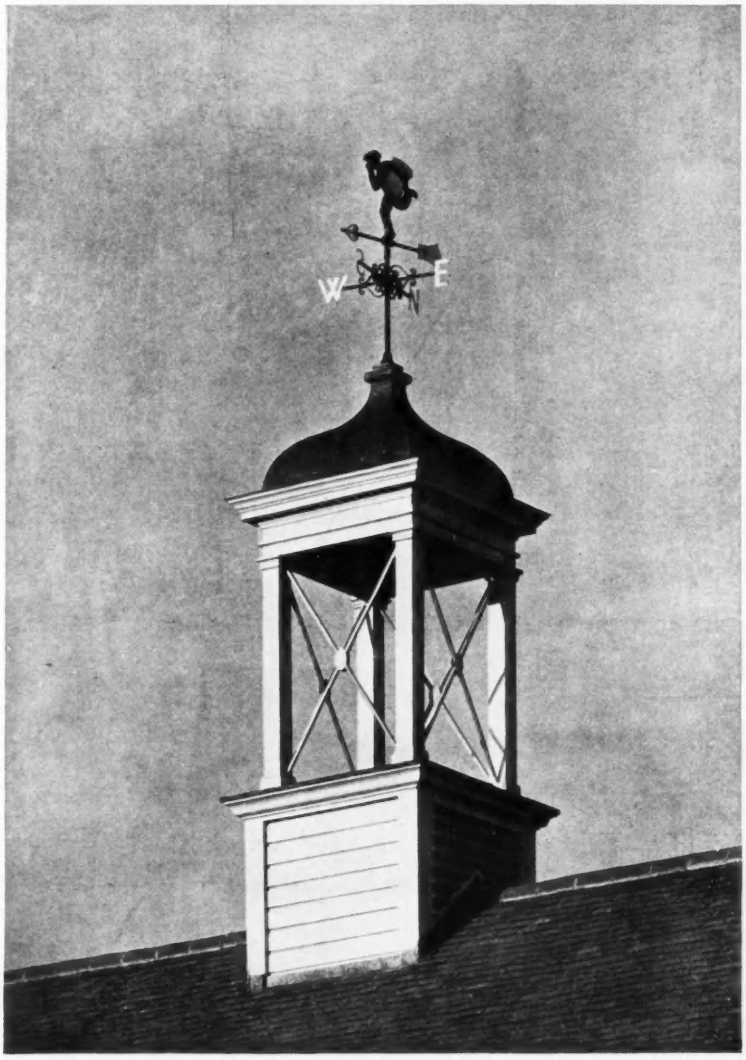
Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement.
Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	5½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



CUPOLA AT
KEMSLEY CLUB HOUSE, KENT
By E. MAXWELL FRY (ADAMS, THOMPSON AND FRY)

THE cupola to the Club House at Kemsley Village, near Sittingbourne, Kent, forms the subject for this week's detail. The architect has adopted a late-eighteenth-century manner, somewhat reminiscent of contemporary work of this nature in the Southern States of America.

The grace and lightness of this design can be judged from the photograph, while a study of the drawing overleaf will reveal the existence of details at once simple and satisfying. The weather vane has provided the excuse for a playful interpretation of Mercury in the modern manner. This is cut out of sheet iron and finished in gold, black and white.

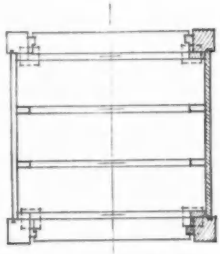
The roof of the cupola itself is covered in copper, which assumes the charming green colour common to that metal when used in exposed positions, and this fact has been taken into account in settling the general colour-scheme.

The drawing may be read with architects' ordinary scales.

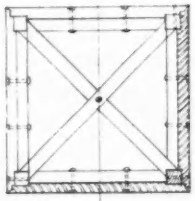
KEMSLEY CLUBHOUSE

DETAILS OF CUPOLA

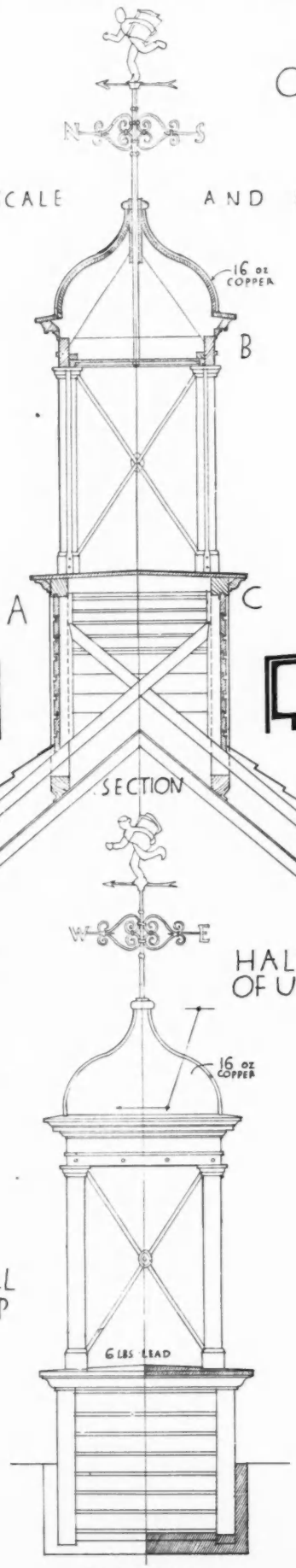
ONE-QUARTER-INCH SCALE AND HALF FULL SIZE



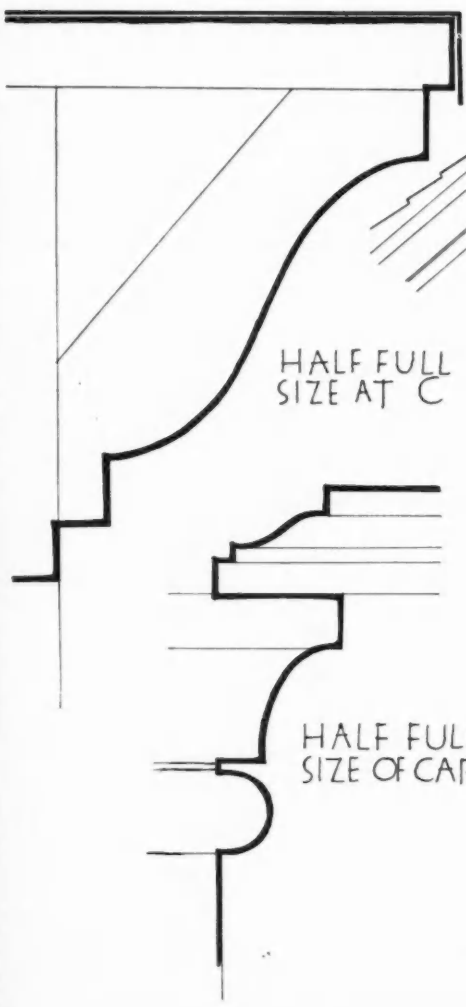
PLAN AT A



PLAN AT B

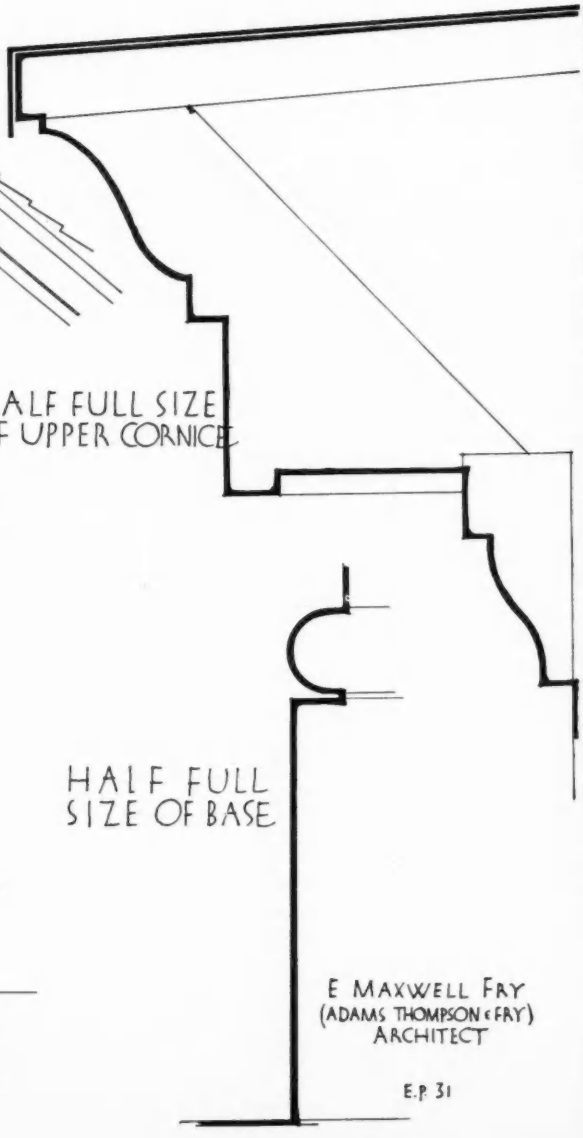


ELEVATION



HALF FULL SIZE AT C

HALF FULL SIZE OF CAP



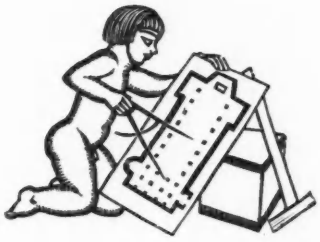
HALF FULL SIZE OF UPPER CORNICE

HALF FULL SIZE OF BASE

E MAXWELL FRY
(ADAMS THOMPSON & FRY)
ARCHITECT

E.P 31

THE ARCHITECTS' JOURNAL



WEDNESDAY, DECEMBER 17, 1930

THE WHEEL TURNS

"The proper preservation of ancient monuments, which are historical links with the past, and many of which, by their intrinsic beauty, give the highest pleasure to thousands of visitors, is a work which is receiving the sympathy and approval of an increasing number of people. His Majesty's Government therefore think it to be their duty to extend, and, where needed, to consolidate their powers in order that they may discharge their trust with an efficiency which will gain general public approval."

—LORD PONSONBY

A COUNTRY that preserves its ancient monuments enriches its present. Silent but eloquent, they make an ever wider reference to a past that unfolds itself about the people as they live and move and have their active being.

England, in the days of its most rapid expansion, when it multiplied itself wantonly and greedily, spreading grey eruptions of industrial activity over miles of pleasant green, was of a nature insensitive to its surroundings. It was, in its masses, of an ignorance close to barbarity. It was of two minds, of which the greater was a mammon gargantuan and terrible.

Strange that the engine that brought so much distaste with its wealth should work the miracle that in a million minds turns apathetic ignorance into receptivity and something approaching a joy in living. Yet it is true that an Act of Parliament that empowers the nation to spend money on the acquisition and maintenance of its ancient monuments could never have become law were it not that today the working classes have, by the advent of the train and motor car, become travellers in and appreciators of their own country. By such good hap we now celebrate the consolidation of an Act of 1913 in another Act which is even now passing through the House of Lords.

The older Act did little more than stake a claim, as it were. It defined an ancient monument as something worth acquisition; but it could not deal with inhabited houses, it had no control over the immediate surroundings of an ancient monument, and it had little adequate machinery for negotiation and acquisition. Nevertheless, under its terms three thousand monuments were scheduled, and a deal of reparation was performed.

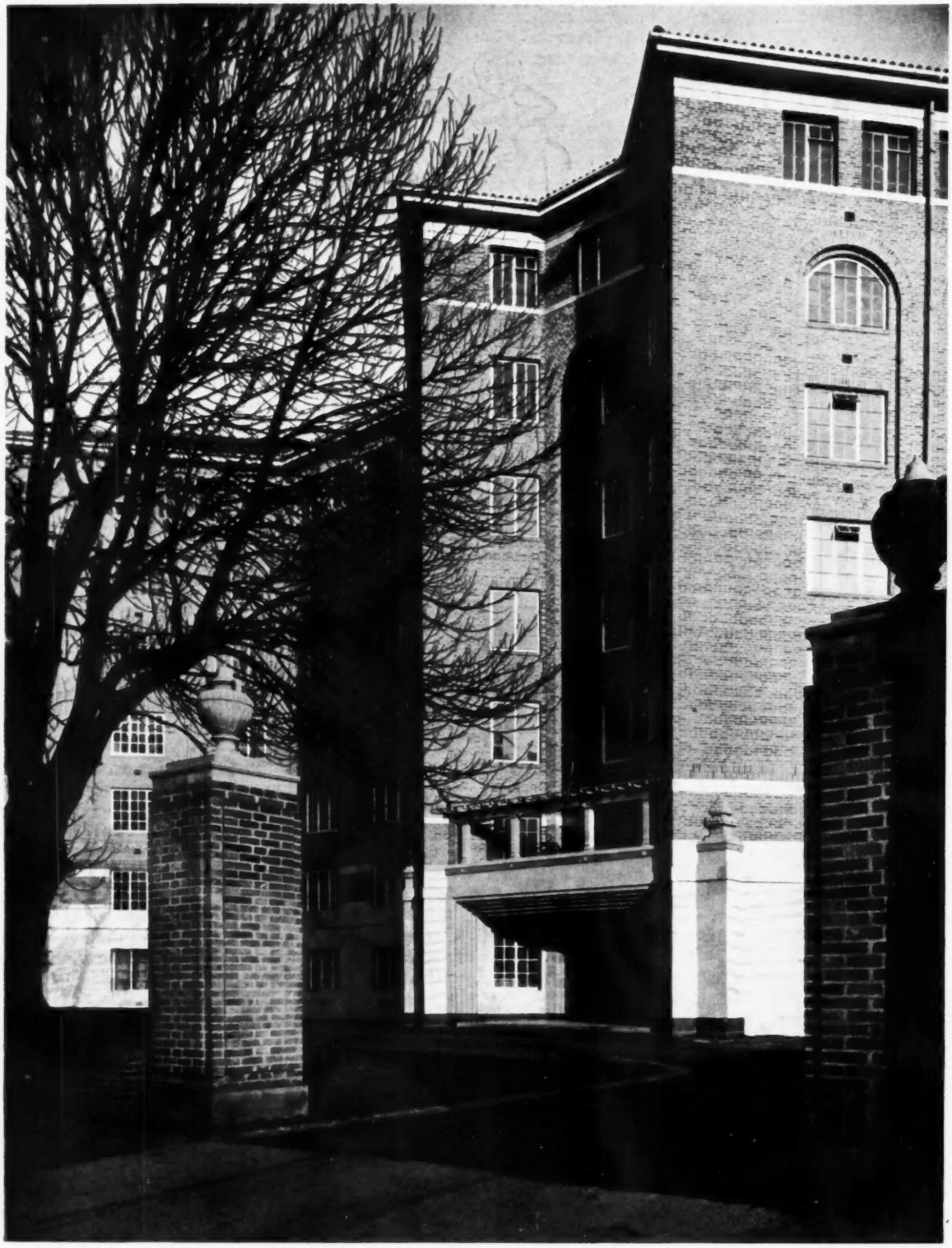
This Act of 1930 imposes no limits over what may be termed ancient monuments, but better still is its machinery for safeguarding what it acquires, for it gives power to authority, either central or local, to prescribe an area of *preservation* about a monument, in which area there must be conformity to a plan that defines a setting sympathetic and congruous. Thus, the impassive dignity of Stonehenge, for so long insulted by the presence of cheap tea-houses and ugly huts, will in the future be approached across the empty plain on which for long centuries it has stood.

Stonehenge is a national inheritance, but over the country at large are monuments, large and small, in which are enshrined the spirit of locality, of history, and in their aggregation we recognize the long story of our particular genius.

The preservation of this story intact, while yet it remains, is a work of education second to none, and we could never be so poor that the loss of one stone would not further impoverish us.

Therefore we shall hope that this Act will become law in its entirety, and that the last important clause, forbidding the exportation of ancient monuments, will be made workable and efficient against a form of depredation which neither common sense nor decency can condone.

Ruskin was right when he warned us to preserve our ancient buildings. He little knew how long it would take the wheel to turn.



SALIENTS IN THE SUN

In planning Cropthorne Court, a new block of flats in Maida Vale, W., Sir Giles Gilbert Scott has adopted the expedient of laying out the window-walls of the main front, illustrated above, and the corresponding rear elevation, in a series of salients, advancing towards the sun. The result is a sensible increase in the amount of light falling into the principal rooms as compared with a flat wall, while with the old-fashioned light-well no comparison is possible. The flats are equipped with central heating, by oil fuel, and electric refrigerators. There are three tenants' entrances, all similar to that shown. Further illustrations appear on pages 899–901.



Cass Gilbert, the eminent American architect, whose election as an Honorary Foreign Academician was made at the recent general assembly of the Royal Academy. He has been described as being a Napoleonic figure in his own country : " Cass Gilbert and his Woolworth Tower stand for the American boy as Wren and St. Paul's do for the English boy." After tours of Europe and Egypt, he became assistant to Stanford White, of the firm of McKim, Mead and White. Among his larger works are the New York Custom House, the Federal Reserve Bank at Minneapolis, and the U.S. Army Supply Base at Brooklyn. His Woolworth building is illustrated on page 916 of this issue.

NEWS & TOPICS

THE CITY BYLAWS OUT OF DATE

IT is most peculiar that London should in some very important things be so far behind the provinces. Young men from the barbarous north, settling into their first London diggings, are often surprised to discover the bathroom hanging out from the back wall like a large larder; or still more surprised not to discover the bathroom at all. Lots of other funny little things come to amuse them as they settle down to becoming a Londoner—some rather nice old customs and habits; others rather silly.

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Many of the more foolish relics have been given some ventilation by the recent report on the subject of building regulation reform, and the story is carried still further by a letter from the Minister of Health to the Clerk to the City of London pointing out that revised bylaws now allow of much greater freedom in the planning of w.c.'s, as in other matters of house drainage and the like, and that the bylaws of the City are twenty years old and much behind the times. This sounds peculiar, but it is really one of the sure signs of privilege that it is denied the luxury of trying out new devices ; consequently all old things are made to last longer than economy warrants.

PROFESSIONAL DIGNITY AND ADVERTISING

There are occasions when professional dignity looks more like a nice old gentleman dozing in a committeeman's chair than a hard-working architect seeking to justify his high calling. This is especially to be remarked in any discussion of the proper uses of advertising in spreading the knowledge of architects' services among the population. Little is said of the gratuitous advertisement presented by such bodies as the C.P.R.E. ; and no means of educating the public have been undertaken by the R.I.B.A., though it is common knowledge among architects that a little elementary information concerning what an architect will perform in great matters and small would, if conveyed in the right terms, almost immediately add considerably to the volume of work under proper architectural control. Instead, the lead is being given to local authorities and Town Planning Committees to do what they may, by advice, to lead the very ignorant along paths of propriety, without the assistance and the safeguards which only architects may provide.

MR. GREENWOOD'S REPLY TO THE N.F.H.B.

I am glad to know that Mr. Greenwood, the Minister of Health, gave a quite categorical " No ! " to the requests by the National Federation of House Builders for a compounded payment of subsidy and a distinct lowering of the standards of estate development and house building. Here is the Minister of Health's reply to Mr. McKellen :

DEAR SIR,—I am desired by Mr. Greenwood to thank you for your letter of 17th October, which has been read with interest. He appreciates the spirit in which the proposals contained in this letter have been prepared and submitted to him. At the same time, he observes that these proposals turn upon the reintroduction of a system of payment of subsidy for the provision of houses by private enterprise. This system was, of course, abolished by the action of the late Government, and that action has been confirmed by the present Government, and Mr. Greenwood regrets he cannot contemplate the submission to Parliament of proposals which would reverse that decision. —Yours, etc.

JUGGERNAUT IN BROAD STREET, W.

Just behind Regent Street, to the eastward, there is being permitted—it is almost done—a thing for which dreadful is the word. Here, amid the jungle of bricks and mortar, intersected by narrow streets and narrower courts, and approachable only by them, a motor-coach station is approaching completion. Already a board advertises frequent services to places thirty, forty, fifty miles and more out of London. Within a few months hundreds of the bulky vehicles, which of late we have seen flashing along the main thoroughfares, will daily be making tedious and impatient way to and from this lair of theirs.

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Walking round the site, I had a vision of what the state of things will be next summer. It is true that the station faces to Broad Street, which justifies its name to the extent of just affording accommodation for five private cars—not motor-coaches—abreast. But, as I have said, to reach Broad Street from any quarter it is imperative to traverse the network of narrow surrounding streets, of which not one will take more than three cars—or two buses—side by side; all involve at least two right-angle turns; and several have incidental bottle-necks and twists all to themselves. In one or two, street markets are held, to boot. Around are tenement buildings, with children swarming across the public highway—their nearest playground—and crowded office buildings housing a hoard of workers.

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Admitting the desirability of a motor-coach station in the heart of the West End—a dubious admission—one would have thought that considerations of reliability and economy in working, reinforced by the lesson of a garage

(for private cars) not far away that is notoriously difficult of access, would have ruled out this of all sites for the promoters. Failing that, why have the authorities not intervened ? The answer is, no doubt, that there is no authority competent to do so. It is just another instance of the crying need for town planning as affecting areas already built.

THE WHITEHALL SCHEME "A TRAGIC MISTAKE"

I referred recently to the Government proposal for building abreast of the Cenotaph in Whitehall, and from there right through to the Embankment. Sir Leslie Scott, in a letter to *The Times* of December 6, stated his personal conviction that it is a tragic mistake, and, as chairman of the Charing Cross Bridge Advisory Committee, pleaded for further consideration before the necessary Bill is introduced. His timely protest has been the signal for an outburst of influential opinion, largely directed against the official scheme. It is mainly the building line on the Embankment that is called in question : it is proposed to advance it no less than 100 feet on that tacitly agreed to in 1912, and to do away, at a stroke, with the possibility of a strip of garden space that is essential to the preservation of this most beautiful stretch of the river, between Westminster and Waterloo bridges. Once again there should be a permanent competent central authority who would, as a matter of course, deliberate upon schemes of the kind.

TO SAFEGUARD ST. PAUL'S CATHEDRAL

By the same token, the custodians of St. Paul's Cathedral, rightly jealous of their charge, will have to go to Parliament for safeguards against deep excavation within a certain area surrounding it. Canon Alexander first mooted the desirability of some such prohibition when the restoration was brought to completion, and it is he, acting on behalf of the Dean and Chapter, who has now been the means of bringing it formally before a committee of the City Corporation. "At present," he has said, "there is nothing to prevent the owners of buildings close to St. Paul's demolishing them and, in the course of rebuilding, carrying out excavations which would menace it."

COMPETITION FOR AN EXHIBITION STAND

A competition that involves the study and display of some interesting materials has been announced in connection with the Building Trades Exhibition at Manchester next April. A premium of £100 is offered for a preliminary design for a stand that will illustrate the character of the various grades of plywood manufactured by Venesta, Limited, and will demonstrate their use. The award carries with it the obligation to supervise the erection of the stand. The assessors are: Mr. Christian Barman, editor, THE ARCHITECTS' JOURNAL; Mr. W. L. Wood, editor, *The Architect and Building News*; Professor A. E. Richardson, nominated by the editor of *The Builder*; Mr. H. de C. Hastings, editor, *The Architectural Review*, and Mr. Henry Rutherford. Open to all practising architects and designers, it does indicate the value set by progressively-minded firms upon well-designed exhibition stands. Venesta, Limited, who earned the blessing of hundreds of architects some years ago by standardizing all their plywood grades, were the first clients for whom M. le Corbusier did work in England; they now seek an English solution for a similar problem next spring.



The Queen Anne elevation to Oxford Street of the new Gamage's has disappeared behind this "seasonable sign."

SCAMPED WORK IN ANCIENT TIMES

We are perhaps too much accustomed to view scamped work or "sharp practice" in building as peculiarly a vice of this sophisticated age. That it was equally rife in the Middle Ages is proved by the existence of laws against its various forms. The statute of 17 Edward IV, c. 4, 1477, quoted by Mr. Nathaniel Lloyd in his monumental *History of English Brickwork*, is a case in point; ordaining (like a British Standard Specification) not only the size of roofing tiles—as a counter-measure against fraud by sharpers whose 1,000 tiles might have less than the expected covering power—but the date upon which the earth was to be dug and its method of weathering.

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That even the "horde of inspectors," who are now such an ever-present bogey with the rampant individualist, could not have been unknown in the days which we are apt to think of as untrammelled, may be inferred from such a historical fragment as follows, extracted from *A Short History of Ruislip*, reviewed elsewhere in this issue, which records a visit in 1572 of two "Searchers of tiles" acting under the before-mentioned Act. They found seven Ruislip tilemakers acting illegally in that they "dug and threw out earth for making tiles at Ruyslippe before the 1st of November, and did not move or turn the same earth as they should have done before the 1st day of February following."

GAMAGE-DAMAGE

Mr. Gamage's new building in Oxford Street was opened with so much of dignified éclat, and was, moreover, so deserving of praise by reason of its architectural merit, that high hopes arose in me. Thought I, this is no ordinary shop, for the expensive apartments above the first floor require that a general air of quietness must prevail to quell that exuberance so natural in the kings of retail commerce. But no. Mr. Gamage is of no race apart. He remains constant to the traditions of a calling given to the hanging out of gaudy signs, whose patronship of the arts is but a poor thing after all. Well, well ; perhaps we expect too much of them. The kiddies have a right to enjoy the sight of Father Christmas coming in his sledge across the third, fourth and fifth story windows of a Queen Anne façade. The kiddies indeed ! What rot !

ASTRAGAL

CROPTHORNE COURT, MAIDA VALE, W.

DESIGNED BY SIR GILES GILBERT SCOTT

CROPTHORNE COURT has been specially designed to give the maximum of light and sunshine to all the rooms in every flat. It stands on a long narrow site with a frontage of about 300 ft. to Maida Vale, and overlooks a garden forecourt. The main front faces south, and has been planned to obtain every advantage of light and air from the frontage without the use of internal light wells.

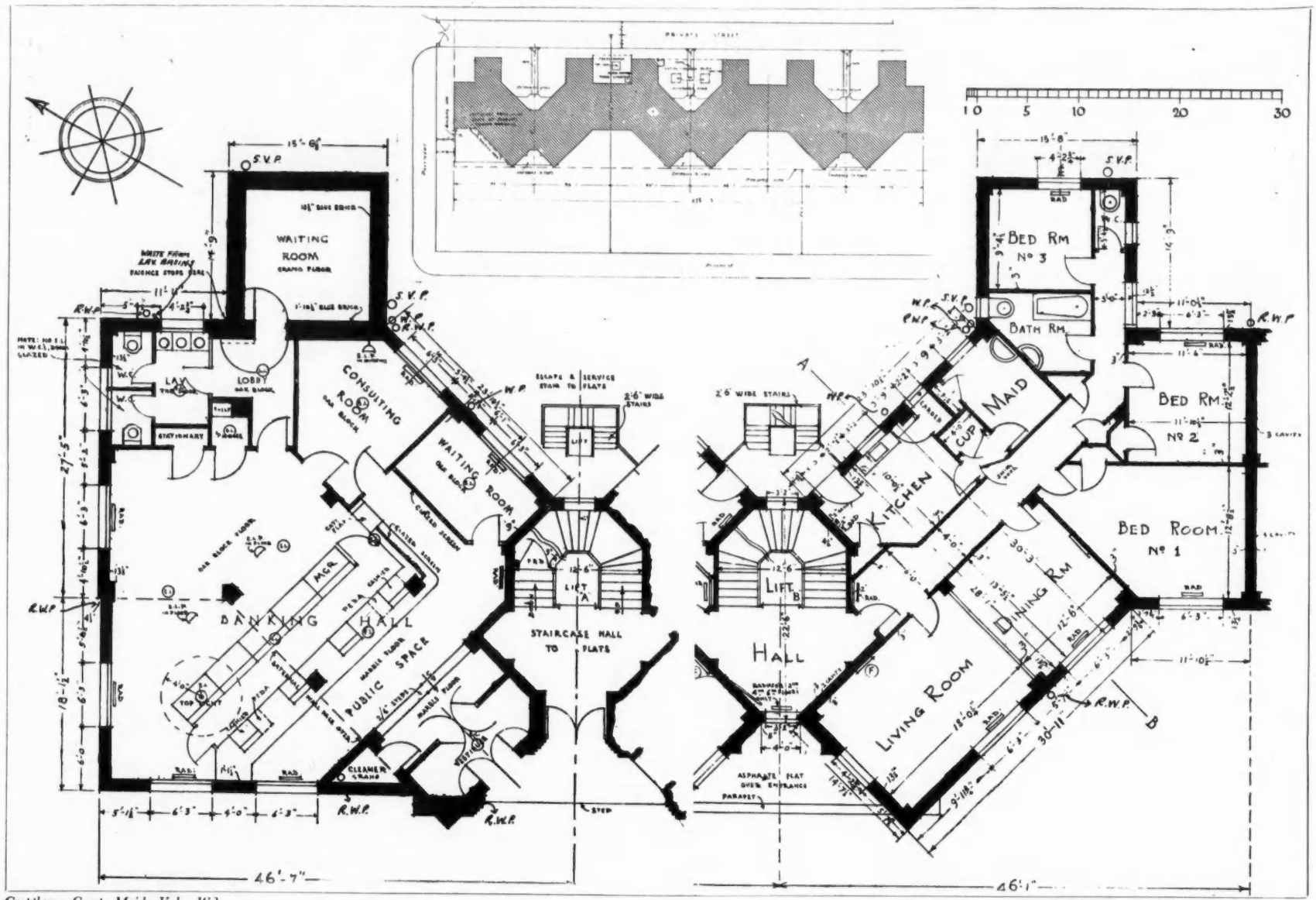
The entrances to the building—there are three for the use of the tenants—are approached by a carriage drive on the main front, and those for the tradesmen are reached by a private road at the rear. The three entrances are of pleasing design, the lift gates, surrounds and grilles being of a silvered finish. Each entrance hall contains a lift and staircase, which lead to the various floors. On every floor, with the exception of the extreme northern corner of the ground floor, which contains bank premises, are two flats, one on either side of the staircase and lift.

The flats are planned to meet the latest modern requirements and to avoid all unnecessary work. The accommodation comprises : hall, living room (18 ft. 8 ins. by 13 ft. 5 ins.), leading through folding doors to the dining room (12 ft. by 13 ft. 5 ins.), which together form a reception room, four bedrooms, bathroom, two w.c.'s and kitchen, and separate tradesmen's entrance with goods lift. The kitchen and maid's bedroom are grouped together and completely shut off from the remainder of the flat.

Central heating and a system of constant hot water and refrigerators are installed; electric current is being supplied for lighting, cooking and heating at a specially reduced rate of ½d. per unit, and ample cupboard accommodation is provided. Tele-



A view from the corner of Hall Road and Maida Vale. On the principal, the Maida Vale, elevation are three entrances to the flats, leading from a carriage drive, in front of which is a garden forecourt.



Cropthorne Court, Maida Vale, W.] *[By Sir Giles Gilbert Scott, R.A.*

Block plan; ground floor plan of north end of the building; and plan of a typical flat. There are two self-contained flats on each floor, one on either side of the staircase hall. The living and dining rooms are separated by folding doors, and may be used together as one large reception room. The kitchen and maid's bedroom are grouped together and completely shut off from the remainder of the flat. The former has a separate doorway leading to the escape and tradesmen's staircase and goods lift, and telephones installed to the tradesmen's entrance.

phones are installed to communicate between kitchens and tradesmen's entrances. All fittings in the kitchens are recessed, leaving unobstructed room, and ample accommodation has been provided for the storage of trunks, etc.

The rentals vary from £375 per annum to £425 per annum, inclusive of rates and taxes, plus a charge of 5 per cent. on the rental to cover porterage, lighting and cleaning of public parts, and upkeep of grounds, etc.

No gas or coal-burning fires are provided in the building, the absence of the latter obviating the necessity for the provision of flue stacks, fuel stores and means of ash removal. The central heating is provided from an oil-burning boiler installation below ground level in the centre court adjoining the private road at the rear of the building.

The elevations are faced with warm stone-coloured faience to first-floor level, and above in greyish-pink Sussex bricks. The roof is covered with Italian Lombardic roofing tiles. Steel casements are fitted. The building line on the main frontage is 50 ft. from the pavement or dwarf boundary wall, and enables a row of trees to be retained, which greatly adds to the amenities.

One of the entrances, looking through the main doors into the hall. All the entrances are of similar design and plan.



A corner of a living-room. Each of the flats is decorated and finished internally to the reasonable choice of the tenant.



Cropthorne Court, Maida Vale, W.] [*By Sir Giles Gilbert Scott, R.A.*

living and dining rooms are separated by folding doors, and may be used together as one

[By W. A. Johnson.
The Hanover Street front. Each of the principal elevations is in Stancliffe stone, with a rusticated base, and steel windows, so arranged that they can be cleaned from inside.

The entrance from Corporation Street leads through a vestibule into the banking hall; see facing page.

Entrance to the administrative offices is from Hanover Street to provide easy access from the Society's offices across the street.

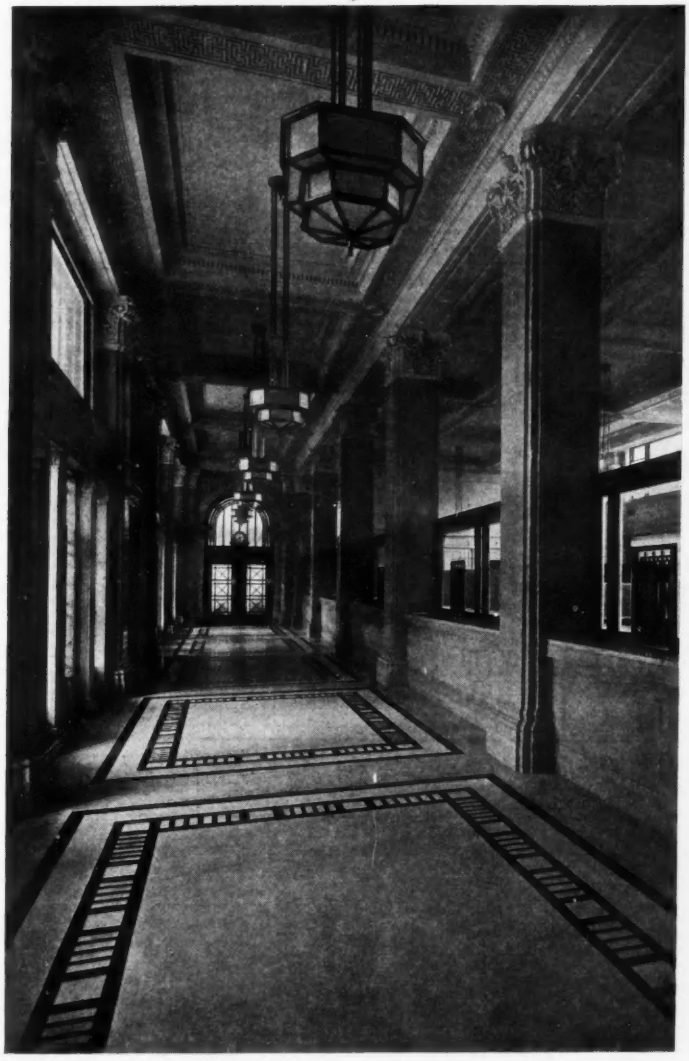
C.W.S. Bank and Administrative Offices, Manchester.]
The Corporation Street front. The building is seven stories high, and rises 90 ft. from pavement level to the top of the parapet. The spaces between the pilasters have a simple infilling of metal.

C.W.S. BANK AND OFFICES, MANCHESTER

DESIGNED BY W. A. JOHNSON

THE new bank and administrative offices of the Co-operative Wholesale Society, Ltd., has just been completed from the designs of Mr. W. A. Johnson, chief architect to the society in their Manchester area, who was assisted by the permanent staff of the architects' department. The building is seven stories high. It rises 90 ft. from pavement level to the top of the parapet, above which is a mansard roof containing the top floor.

On the ground floor, in addition to the spacious entrance hall, the banking hall and the various offices of the banking department, is the memorial erected to the memory of the employees of the society who lost their lives in the Great War. This consists of a cenotaph, with bronze lamps at either side, standing in a marble-lined, semi-circular apse, on the walls of which are inscribed the names of the fallen, the whole surmounted by a coffered semi-dome.



In the banking hall the floor of the public space is covered with Travertine marble with rubber panels. The counter is faced with marble and has a bronze grille, illuminated from above by trough lighting.

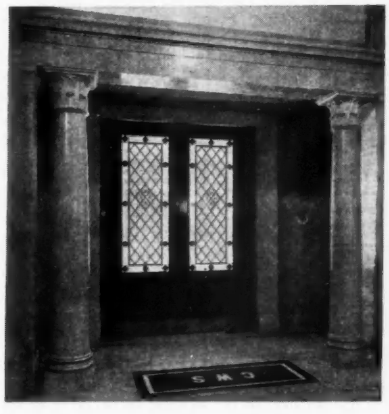
Access to the banking hall is obtained from the entrance from Corporation Street. The banking hall is 72 ft. long by 43 ft. wide, and is 19 ft. high. Stanchions supporting the floors above are lined with Roman stone, terminating in fibrous plaster capitals. The ceiling is panelled in a simple manner and the floor of the public space is covered with Travertine marble with rubber panels. The public counter is also faced with marble and bears a bronze grille, illuminated from above by trough lighting.

For convenience of access from the society's present offices, the main entrance hall and staircase are placed on the narrow Hanover Street front. A lofty arched entrance doorway leads to the entrance hall, from which access is obtained to the staircase and passenger lifts.

On the upper floors are offices for the solicitors, accountants, architects, engineers, publicity and advertising departments. The aim in planning has been to reduce the complex requirements of an administrative block of this character to the utmost simplicity of arrangement; to provide the largest possible uninterrupted floor space for office use; and the most direct and convenient routes to and from the offices.

The principal elevations are faced in Stancliffe stone, and have large windows, constructed of steel.

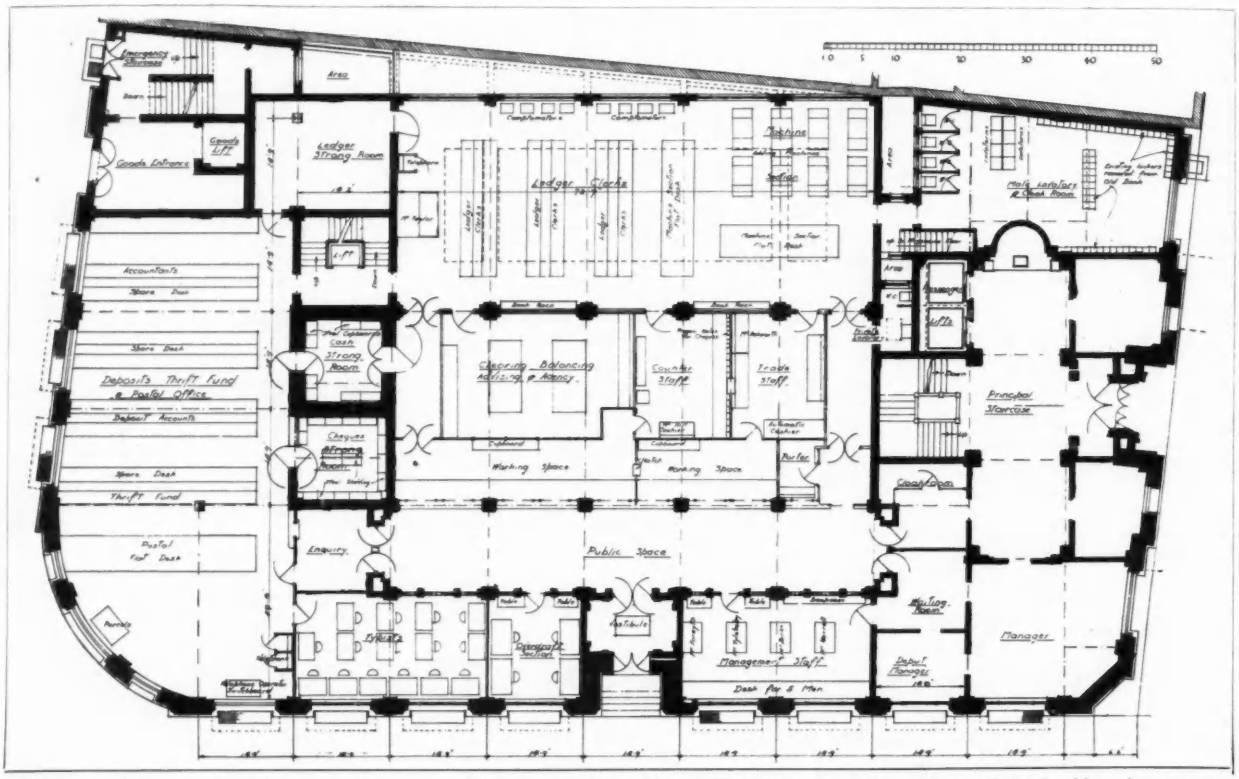
The spaces between the pilasters, with carved capitals, which run up through three stories, have a simple infilling of metal. The order of pilasters is crowned by an entablature, above which is an attic story with subsidiary cornice and balustrade.



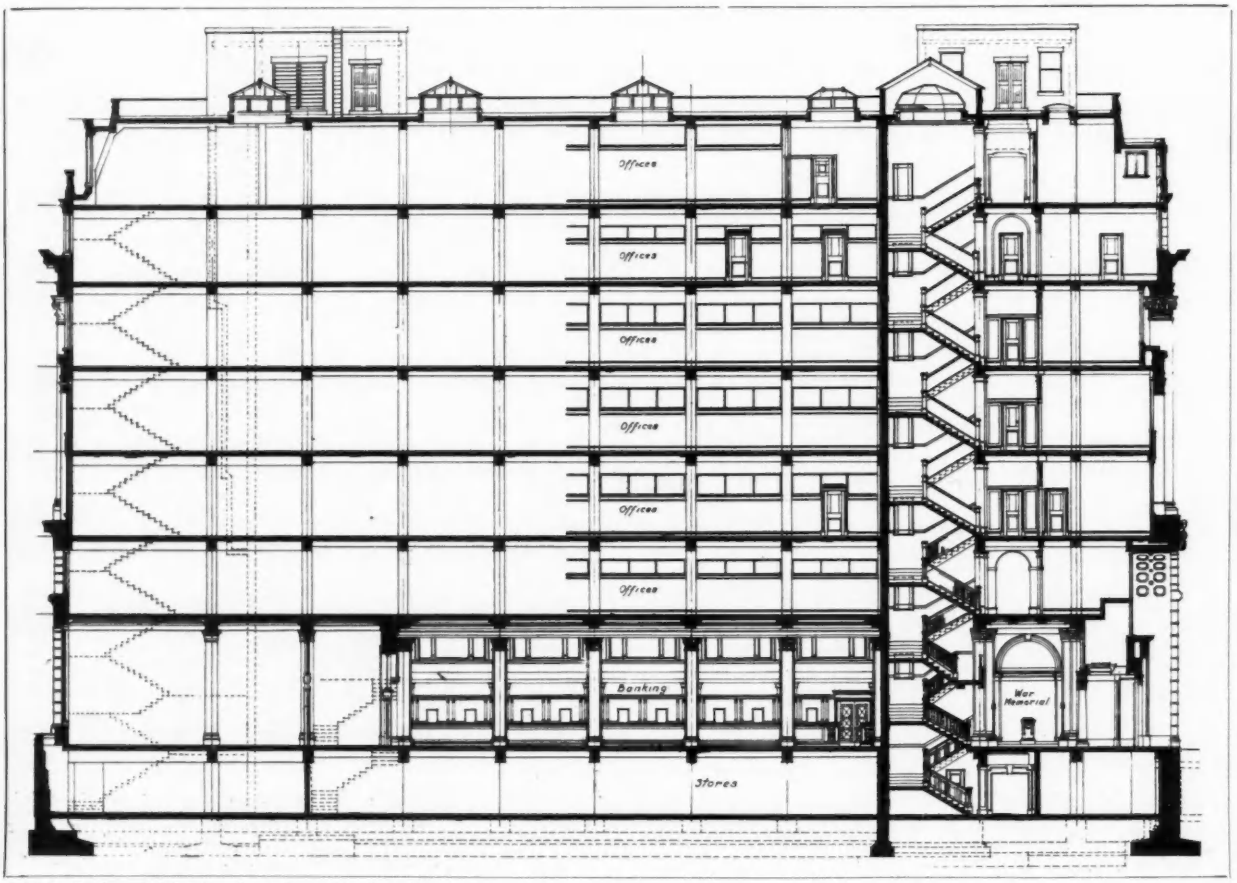
The Hanover Street entrance, looking from the hall, from which access is obtained to the main staircase and lifts.



These doors at the end of the public space lead to the enquiry, and the deposits thrift fund and postal office.

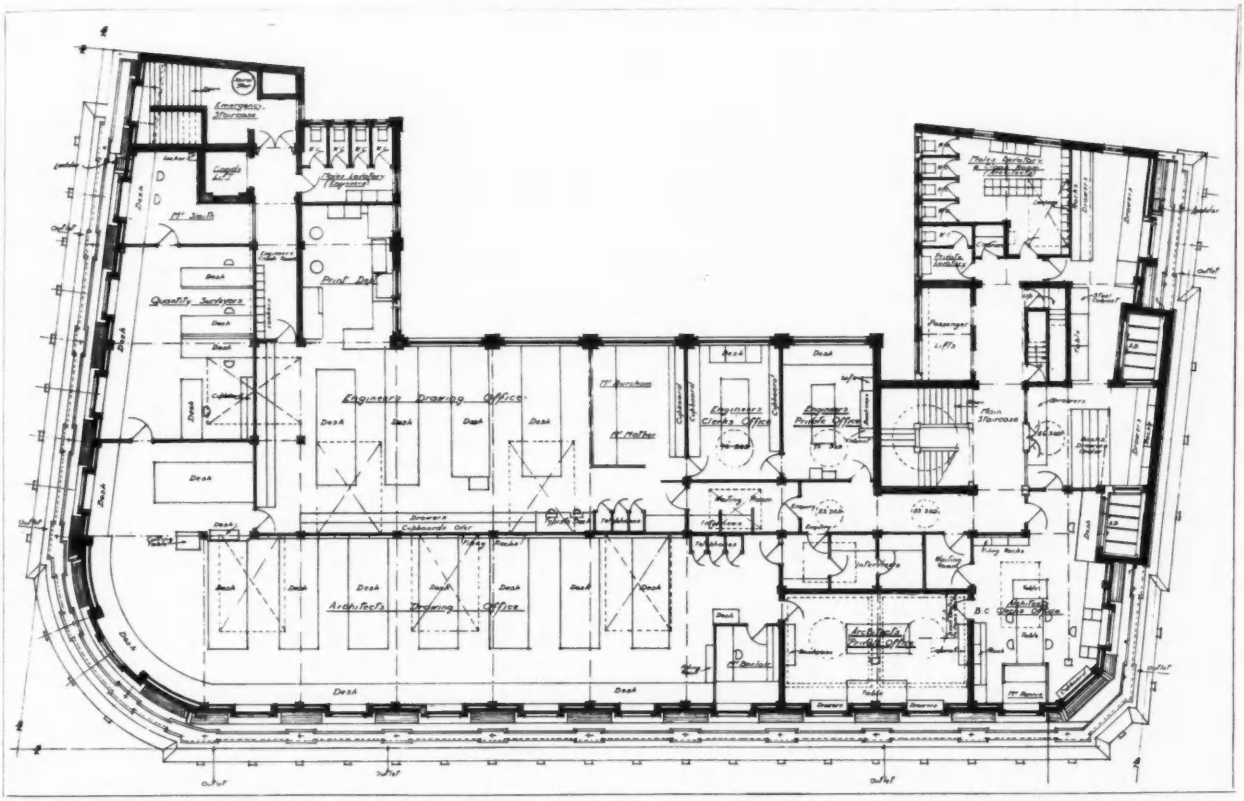


The ground floor is devoted to a main entrance hall, the public banking hall and to the various offices of the banking department. Daylight is admitted to the banking hall from windows on the main elevation and at the rear of the hall.

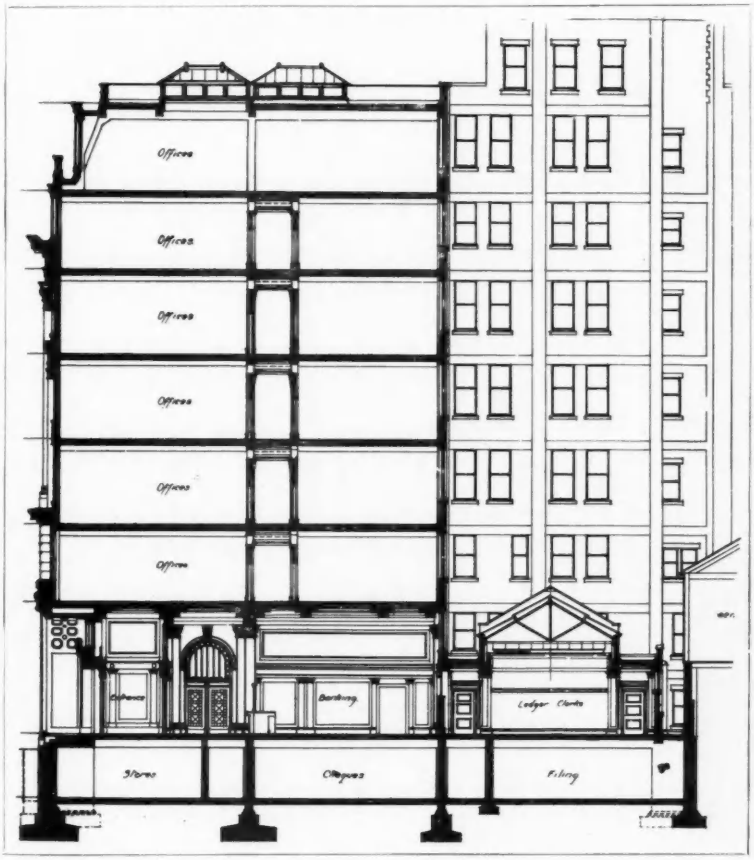


C.W.S. Bank and Administrative Offices, Manchester.]

Longitudinal section, reproduced to the same scale as all the drawings illustrated on this and the facing page. The building is steel-framed and encased in concrete. Floors are of steel and concrete, finished, in the majority of cases, with wood boards and linoleum.



On the sixth floor are the offices of the architects' and engineers' departments of the society. Each floor is planned with the largest possible uninterrupted floor space and with the most direct and convenient routes to and from the various offices.



Cross section. Vacuum cleaning, with a central exhauster and dust collector, and a ventilating apparatus, which warms or cools the air, are provided.



[*By W. A. Johnson*

A typical office. Post Office and inter-departmental telephones and synchronized clocks are installed.



The war memorial consists of a semi-circular apse, with a semi-dome, and a cenotaph with brass lamps at either side.



A typical staircase hall. The corridors lead direct to an emergency staircase on the opposite side of the building.



C.W.S. Bank and Administrative Offices, Manchester.]

All corridors, of brick on edge, have borrowed lights, consisting of one sheet of glass from stanchion to stanchion, above door height.



[By W. A. Johnson.

The bank manager's room, on the ground floor, contains some fine woodwork, including a bookcase, seen to the left of the illustration.



ENGLISH PRECEDENT No. 146

ST. MARY'S CHURCH, WARWICK

The form is Gothic, the detail Classic. As in Wren's western façade of Westminster Abbey, classic detail is used where it fits, twisted a little in the awkward places, and dropped altogether in really vital places. The result is disappointing after the main outline is realized. Only the arched porch under the tower retrieves the exterior from inconsequence.

LETTERS FROM READERS

Housing: The Counter-Revolution

SIR,—As author of the leading article entitled "Housing: the Counter-Revolution," I was careful to say that Mr. McKellen's "bias towards financial *interestedness* was steadied by more than a grain of allowable criticism against the system of open development by which post-war housing has been characterized."

I will return to that aspect of the case towards the end of my letter. Meanwhile I must remark that the feelings of deep suspicion provoked by Mr. McKellen's first manifesto are not dispelled by his letter in your issue for December 3. He rather adds to them than otherwise when, Sir, he asks you to accept figures proving that private enterprise has built twice the number of houses erected by public bodies at but one-tenth of the cost to the public. I do not propose to inquire into the true value *to the community* of the contrasted types of houses, but I do not believe that private enterprise has served the country one-tenth as well as the authors of the Council housing schemes which Mr. McKellen abuses so easily and with so little meaning.

Council housing has been continuous through every bad period since the war, and has attempted to cater for classes of the community which private enterprise, having more profitable things to do, has left alone. There is now a chance that the lower classes of tenant may be successfully catered for, if the utmost economies are effected. These economies may quite easily take some of the forms proposed by Mr. McKellen, but what struck others than myself was the light-hearted assumption that they should take the form of a negation of the principal virtues of careful planning in order that private individuals should make money out of the business. There was, if I may point out to Mr. McKellen, so great a stress upon the investment point of view, and so little upon the necessity for the safeguards he mentions at the tail-end of his last letter, that he must not be surprised to hear talk of Philistines: they are generally supposed to be of that frame of mind.

We are all so very truly interested in the building of really cheap houses to let at economical rents, that I feel that if THE ARCHITECTS' JOURNAL could entertain some further examination of the subject, in particular the question of longer blocks without essential sacrifice of density, it would be performing a very timely and useful work.

YOUR LEADER WRITER

[Such an examination as our correspondent suggests is now being undertaken, and it is hoped to publish the results shortly.—ED. A. J.]

Rebuilding of Middlesex Hospital

SIR,—I see in your last issue you published an interesting letter from Sir Leonard Hill, referring to the rebuilding of the Middlesex Hospital. As the architect for this scheme, I should like to correct the impression that will be gained from Sir Leonard Hill's letter.

With regard to the provision for open-air and sun treatment, the present west wing has already something over 300 ft. run of 8 ft. balcony, and when the east wing and centre block are completed there will be in all some 1,000 ft. run of 8 ft. balcony available for patients in the new hospital.

With regard to the second paragraph in Sir Leonard Hill's letter, in which he expresses the opinion that hospitals should not be rebuilt in cities, this, of course, is a matter of opinion, and has been discussed at length on numerous occasions. So far as the Middlesex Hospital is concerned, this, of course, was one of the first points considered when the general question of rebuilding was dealt with by the Board, and every aspect of this problem was extensively discussed.

The Middlesex Hospital is perhaps unique in this way: that it exists on the site only as a hospital, or, in other words, the site is not available for any other form of development, as there is a clause in the hospital's lease with the Berners Estate which limits the use of the site to a hospital. Clearly, therefore, there would be no value, so far as the hospital is concerned, in the site, as it cannot be disposed of.

An added argument to the desirability of the hospital staying where it is, was, of course, the fact that more than half the buildings on the rest of the site are practically modern, and there is a very large medical school attached, and numerous other buildings used for specialist services, both for teaching, research and the treatment of patients. Clearly, therefore, it was essential that the Middlesex Hospital should remain on its present and existing site.

ALNER W. HALL

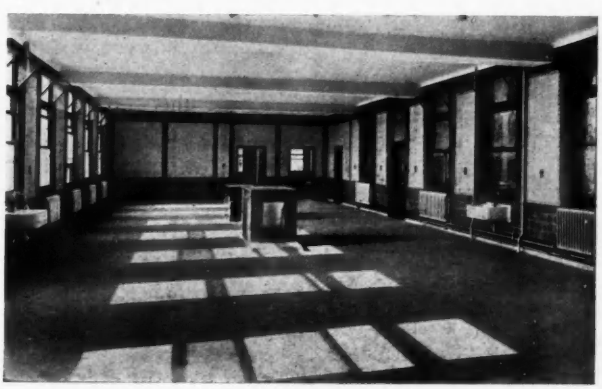
Soot Bound

SIR,—I was very interested to read the leading article entitled "Soot Bound" in your issue for November 26, and also the letter from the General Secretary of the National Smoke Abatement Society, in the issue for December 10.

As Mr. Arnold Marsh truly says, there is a tremendously strong tradition in favour of coal fires, and I think we should consider whether this tradition is based wholly on sentiment, or whether there are stronger and sounder reasons for its having such a great hold on the public mind.

I think that, without doubt, these reasons do exist. The case for the coal fire can be argued not only on the grounds of health, cheerfulness and comfort, but also upon the important factor of economy. The coal fire is a much finer ventilating agent than any other form of heating. I think that the words of an eminent authority





A balcony and one of the wards at the Middlesex Hospital. Mr. Alner W. Hall, the architect, in a letter on this page, states that when the east wing and centre block are completed, there will be no less than 1,000 ft. run of 8 ft. balcony available for patients. The right-hand photograph illustrates the ample window space provided for the admission of sunlight to the building.

on this subject, Dr. Marie Stopes, are worthy of attention in this connection :

> A glowing fire gives out something subtle, yet intensely "nourishing" to the system, "nourishing" in the way that vitamins and ultra-violet rays are "nourishing." Whatever this stimulating influence may be, it is either absent or very weak in radiation from heat in gas or electric fires. Hence, for health, a bright glowing coal fire should be present in the nursery, and in the chief living room in every house.

In case, however, the attitude of my Federation on this question should be in any way misunderstood, I think I am voicing the views of the members in stating that we should be the first to welcome any smokeless fuel which, while easily ignited, will give a cheerful hot fire, leaving little ash, and which at the same time is of a reasonable price. A well known gas engineer has, however, recently stated that low temperature coke (the most suitable form of smokeless fuel for the open grate) "is not yet a commercial proposition."

A great deal more smoke is caused by domestic chimneys than is necessary, and no effort should be spared by both merchants and consumers alike to lessen the amount of smoke issuing from domestic chimneys. A very small amount of knowledge of the correct way to handle a coal fire, and of the most suitable fuel to burn for the purpose required, coupled with the installation of modern appliances where very old ones exist, will be sufficient to this end.

It is the wish of my Federation to make this knowledge as widespread as possible, and to co-operate in any movement to that end.

I think it will interest architects to know that the Coal Trade Luncheon Club, in collaboration with the Institute of Fuel and the Government Fuel Research Board, and with the assistance of this Federation, is publishing shortly a textbook on coal, which will deal, among other things, with the matters of domestic heating and cooking. This book will contain information of the utmost interest on these subjects.

It is not perhaps generally realized that great contributions to the cause of smoke abatement have been made in recent years by manufacturers of modern open fire places, kitchen ranges and "combined stoves" (i.e. stoves which, while having the appearance and giving the undoubted comfort of sitting room fires, are designed also for cooking and for the heating of hot water).

With the first, the improved combustion leads to far less smoke being emitted than is the case with old-fashioned grates, while there are now on the market kitchen ranges and "combined stoves" which are so designed as to consume practically all their own smoke while burning coal.

GEORGE GENTRY
(SECRETARY, THE COAL MERCHANTS' FEDERATION OF GREAT BRITAIN)

Expiration of Lease

SIR,—A client of mine is shortly going out of a house, the lease of which is about to expire. Under the terms of the lease my client has to make good any defects and to leave the house in a properly tenantable condition. He is further bound to have one coat of paint put on all the internal woodwork.

For reasons with which I am not entirely familiar, my client feels deeply aggrieved at the treatment he has received from his landlords and their agents, and proposes to express his displeasure by applying to the woodwork in the house a coat of black paint. I have been asked for my opinion as to whether such a coat of paint (which would, in fact, amount to wanton damage) would be a contravention of the terms of the lease. Are any of your readers able to throw any light on this question ?

PERPLEXED

[The question asked by our correspondent is so unusual that readers are invited to forward their views on this subject for publication in the JOURNAL.]

IN THAT CONTINGENCY

The following abstracts of inquiries on the deterioration of a reinforced concrete floor and cracking of asphalte roofing, are two of a number recently submitted to the Building Research Station, and their replies thereto.

Deterioration of reinforced concrete floor

IT was reported that trouble had been experienced in a margarine factory through the flaking off of large pieces of concrete. This appeared to be due to water percolating through the reinforced concrete floors and setting up corrosion of the steelwork embedded in the concrete.

It was reported that a fairly strong solution of soda ash had been regularly used in cleaning the floors. The inquirer wished to know whether the use of soda ash has any deleterious effect on concrete, and whether its corrosive effects on steel would be greater than that of water alone.

Reply : Soda ash has no marked deleterious effect on concrete or cement, nor will it set up corrosion in steel reinforcement, and will tend rather to reduce any corrosive action set up by other agents.

From the fact that regular use of soda ash is required, it is assumed that the oils used in the manufacture of margarine find their way on to the floor. Such oils are known to have a marked deleterious effect on concrete, and the products of their decomposition may attack constituents in the cement, and would be liable to promote corrosion in steel with which they may come in contact.

It is possible, of course, that disintegration of the concrete might be accelerated by crystallization of soluble salts derived from the soda ash (or the products resulting from its reaction with constituents of the cement), with acid gases in the atmosphere. In view of the known destructive effects of animal and vegetable oils, however, this is not considered likely to be such an important factor.

Cracking of asphalt roofing on concrete

The Building Committee of an Education Authority reported that considerable trouble had been experienced due to cracking of mastic asphalt laid on concrete roofs. Some of the large cracks had been repaired by inserting a new strip 4 or 5 ins. wide, but usually when this had been done a permanent cure was not effected, and now cracks developed near the joints. Various suggestions for repairing the cracks with asphalt mastic had been proposed by the firms who laid the original asphalt.

Reply : The case reported is very similar to one previously investigated. The cracks appeared to have a structural origin, and it was finally concluded that there was very little hope of stopping them with any plastic treatment. With cracks of structural origin, periodic movements are almost inevitable, and there is a tendency for any seal to be broken. It is probable that the best asphalt mastics are capable of accommodating quite appreciable movements of the supporting structure, and cases have been investigated where serious expansion and cracking of a concrete roof slab had not cracked the asphalt.

In the case previously investigated, repeated attempts at patching had proved unavailing and surface treatments with bituminous compositions had also failed to give any lasting satisfaction. It was finally decided to cover the roofs with a three-ply bitumen felt, mopped down with hot bitumen, and finally covered with a layer of bitumen and gritted. It was hoped that a pliable membrane of this kind would be able to accommodate itself to the movements likely to take place at the cracks. It was suggested that by omitting the bitumen dressing for a space of about 6 ins. on either side of the worst of the cracks still further freedom would be provided for possible movements.

New Masters' House EASTBOURNE COLLEGE and Butler's Quarters

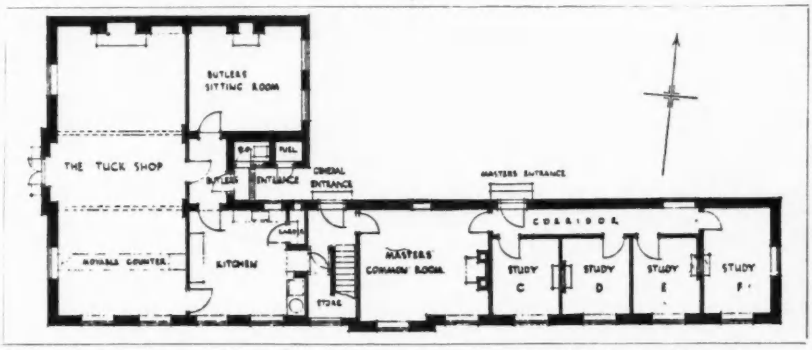
DESIGNED BY TATCHELL AND WILSON



A general view from the south. The pedimented section contains, on the ground floor, the masters' common room, and has studies to the right, and store, kitchen and tuck-shop (not here included) to the left. Above are studies and bedrooms. Apart from the tuck-shop doors, the entrances are on the north side of the wing, the stairs facing one which occurs in the angle of the L-shaped plan, next to the masters' common room.

IN this new building, which has been designed on a confined site and with strict regard to economy, the chief rooms have been arranged to obtain the best advantage from the warmer and sunnier aspects. It is built of local multicoloured stock bricks, with small red Lombardic tiles for the roof, a flat pitch being necessary owing to the narrowness of the road and the nearness of the buildings opposite.

The formal design is united by a strongly-defined overhang of the eaves, which casts a deep shadow. The windows are symmetrical, having metal casements framed between wood mullions, and the balance of the elevation is emphasized by pedimented central features with wrought-iron first-floor balconies and French casement windows.

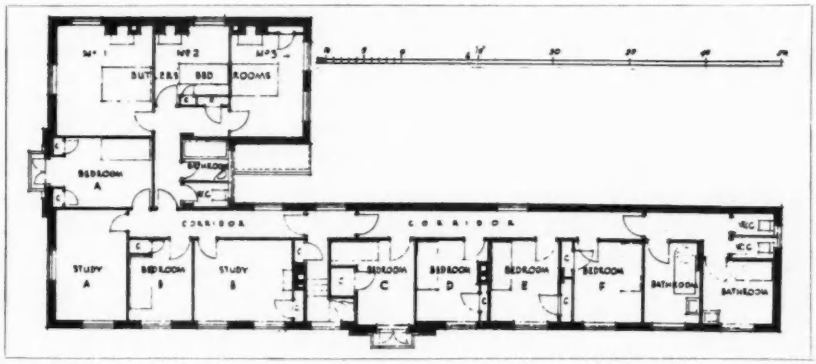


The ground-floor plan. The tuck-shop and service quarters, including the butler's sitting-room, absorb the end rectangle, while the masters' common room and four studies occupy the wing.

The plan is L-shaped and is the outcome of the conditions imposed by the site and the required accommodation. Six junior masters are each provided with a study and bedroom facing south on the ground and first floors.

There is a masters' common room on the ground floor, and bath and lavatory accommodation at the east end of the first floor. The school tuck-shop is entered from and faces the playing-fields on the west and connects with the kitchen, etc., and a sitting-room for the butler, the remainder of whose accommodation is on the first floor. The tuck-shop is 39 ft. long by 17 ft. wide, and is the largest apartment in the building.

Inside, the walls are treated with plain light washes and act as a foil to the joinery, which is stained a light oak colour.



The first-floor plan. Here not only the wing is devoted to corresponding masters' bedrooms, bathrooms, etc., for the studies below, but two more sets prolong the line and turn the corner.



Haus Skywa, Hietzing, Vienna (1913–15).



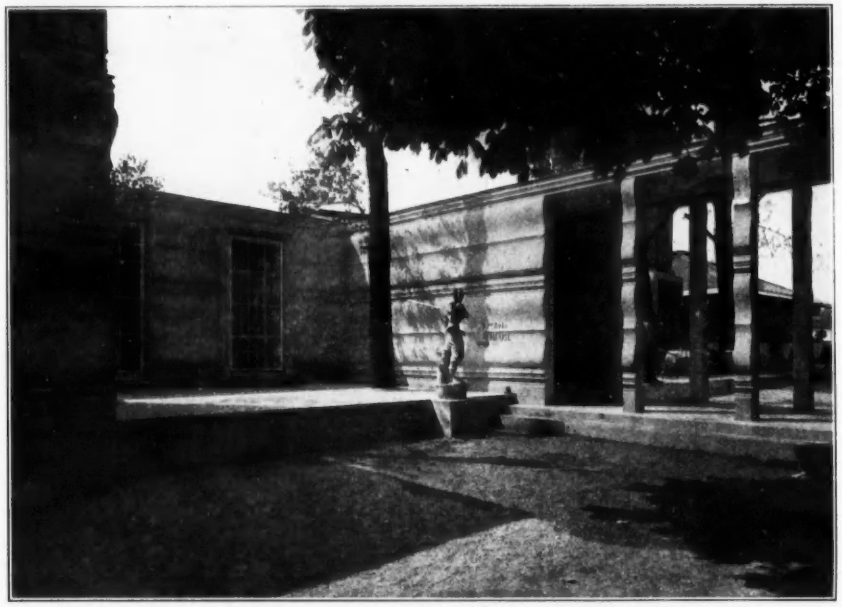
Hall of Haus Berl, Freudenthal, Czechoslovakia (1920–22).

SOME WORK OF JOSEF HOFFMANN

[*From* Josef Hoffmann, *by Leopold Kleiner; by courtesy of the Friedrich Ernst Hübsch Verlag, Berlin.*]



Landhaus Ast at Velden, Austria (1923).



The Austrian Pavilion at the Paris Exposition des Arts Décoratifs (1925).

THE WORK OF JOSEF HOFFMANN

BY P. MORTON SHAND

THE first duty of the architect, according to Josef Hoffmann, is to rid himself of preconceived prejudices and predilections, since form proceeds from function, and not inversely. For him the sincerity of form —by no means necessarily one and the same thing as the Neo-Puritan concept of *Sachlichkeit*, or Functionalism—comes before everything else because, now that his art has been liberated from the servility of mere reproductive imitation, the architect is free either to forge his own style, or adopt whichever most fully expresses his own individuality.

Hoffmann once scandalized the delicate artistic sensibilities of a high personage who was consulting him on the most appropriate design for the casements of his new villa by saying that the first consideration in regard to a window was whether it was easy to open and clean.

As a designer and craftsman in wood, ivory, metal and glass he has consistently subjected the smallest objects, like cigarette-boxes and sugar-bowls, to the same severe architectonic discipline as the planning of a large country house or the elevations of an important group of exhibition buildings.

Hoffmann must have designed more of the latter than any man living. Three of them were of outstanding importance. The charming Austrian Pavilion at the Rome Exhibition of 1911, with its gracefully attenuated, untraditional square columns, has been the prototype of all post-war exhibition architecture. The *Oesterreichisches Haus* at the 1914 Cologne *Werkbund* Exhibition—another columnar composition, surmounted by a double tympanum, in which vertical emphasis was almost violently enhanced by the deep flutings of the very broad shafts—proclaimed Hoffmann's fearless advance to what we now call Modernism. Finally, the *Pavillon d'Autriche* at the Paris Exposition des Arts Décoratifs in 1911, a supremely original, consummately refined and truly masterly design, unforgettable to anyone who saw it, marked the culmination of his evolution as an architect.

Hoffmann has been as great a teacher as an artist, because he has the rare gift of making his pupils feel that he is their collaborator, not an omniscient instructor. His pupils—among whom R. Mallet-Stevens, Gabriel Guevrekian and E. J. Margold are names that naturally come to mind—have left him with the mastery of handling material rather than of any particular style; and equipped with a sense of the practical needs of everyday life.

As a young man Hoffmann studied the elements of peasant architecture in cottages and homesteads with the same passionate thoroughness that others have applied to sumptuosities of the grand manner. These lessons have stood him in good stead. To him, more than to anyone else, we owe it that Europe was saved from an epidemic of *art nouveau*, and made ripe for the stern renunciations of Modernism.

There is no echo in anything Hoffmann has ever done of the quaint, the picturesque, the pseudo-rustic, or the self-consciously arresting.

Hoffmann's villas and country houses owe more than a little to English precedents: a debt which, like the modest genius he is, he delights to acknowledge. In return he has exercised a not inconsiderable influence on the work of Ernest Newton, Thackeray Turner, Guy Dawber, and George P. Bankart—names to which one is almost tempted to add those of Edward Maufe, Oswald Milne, Oliver Hill and Basil Ionides. The *Haus Henneberg* (1902), the dining-room for Fritz Wärnedorfer (1903), and the offices of the *Wiener Werkstätte* (1904), like the interior decorations of the *Graben Kaffee* (1912) and the *Poldihütte* offices in Vienna (1912) and the *Haus*



Municipal tenement-house, Felix Mottl Strasse, Vienna.

[*From* Josef Hoffmann, *by Leopold Kleiner; by courtesy of the Friedrich Ernst Hübsch Verlag, Berlin.*]

The Austrian Pavilion at the Paris Exposition des Arts Décoratifs (1925).

Landhaus Ast at Velden, Austria (1923).

Primavesi in Winkelsdorf (1913), represent the earlier phase of his development, contemporary with, and in many ways similar to, the active part of Mackintosh's career. After the war there is a rather pronounced cleavage with the Secession traditions of the *Palais Stoclet*. The *Haus Berl* at Freudenthal and the *Haus Grohmann* at Würbethal, both of which were built in 1920, are externally devoid of all ornamentation; the former, indeed, being almost a little grim. The interiors of both, however, are perfect examples of clarity and sober grace. The *Landhaus Ast* at Velden (1923), with its deliberate horizontal emphasis, is a sort of *première ébauche* of the Austrian Pavilion in the Paris Exhibition of 1925. Simpler than anything he had yet done, except perhaps the Purkersdorf Sanatorium (1904), but with just as pleasing and workmanlike elevations, is the block of working-class dwellings in the Felix Mottl Strasse, built by the City of Vienna in 1924.

One of his latest works is a memorial to Otto Wagner in a public square in Vienna: a slender, rectangular pillar of plainly dressed grey granite, without pedestal or capital. Most of Hoffmann's buildings are to be found in and around the city he cannot bring himself to leave in its—we hope transient—eclipse. It is nearly forty years since Hoffmann settled in Vienna, and in that relatively short interval his work and his pervading personality have become as much a part of the old imperial capital as the memories and monuments of the vanished Hapsburgs.

THE ANCIENT MONUMENTS BILL

House of Lords Second Reading

ON Thursday, December 11, in the House of Lords, Lord Ponsonby moved the second reading of the Ancient Monuments Bill.

He explained that an Act passed in 1913, upon which now all the activities of the Ancient Monuments Department were founded, introduced an element of compulsion and the idea of scheduling or listing ancient monuments. Since that time something like 3,000 had been scheduled. The Act of 1913 also empowered the Commissioners to give advice, and in many cases advantage had been taken of that provision. The Commissioners were also empowered to buy, accept, or become guardians of ancient monuments, and something like 280 ancient monuments had been handed over since that date. The whole scheme of preserving ancient monuments had greatly increased during the past ten years. The introduction of motor coaches had increased the number of visitors to such places.

In 1924–25 there were 160 of these ancient monuments, which were visited by 275,000 people, the receipts for admission being £5,541. Last year there were 223 of these monuments, 493,000 people visited them, and the receipts amounted to £9,839. In addition to ancient monuments, there were certain historic buildings, such as the Tower of London, Carnarvon Castle, Carisbrooke Castle, Edinburgh Castle, and so on. In 1924 the receipts from admission fees to such places amounted to £23,000, while in 1929–30 they were £26,814. The amount of money spent on ancient monuments had varied during the past five years between £45,000 and £55,000.

These places, under the guardianship of the Office of Works, were admirably preserved, and he paid a tribute to the interest shown in this Department by successive First Commissioners of Works during the past ten or fifteen years, as well as to the zeal and enterprise, intelligence and good taste of the Permanent Secretary to the Office of Works, Sir Lionel Earle. He also paid a tribute to the exact and profound knowledge and indefatigable activity of Mr. Peers, the chief inspector.

There were new elements introduced by the Bill, but a great part of it consolidated and extended the Act of 1913. The chief of the new elements was in clauses 1 and 2, which gave power to the Commissioners to prepare schemes for the protection of the surroundings of ancient monuments. Those schemes would be on the lines of town-planning schemes, but town planning was not enough; a central authority is necessary. This provision had been very much brought to the front by the threat to the amenities of Hadrian's Wall. Although the Wall and the Vallum to the south of the wall were both scheduled by the Office of Works, the ground between them or near the Wall did not come under the control of the department, and could not, under the Act of 1913, be protected by them. Fortunately, the gentleman who was conducting quarrying operations near the Wall had agreed not to do anything which would imperil the Wall, and there was no immediate danger. But that was only one instance of many where it was necessary, in order to preserve these monuments adequately to have the power to acquire certain sites and land round them.

Another instance was Stonehenge. If the Bill had been law it would have been possible to have acquired the land round Stonehenge, say a square mile of it, in order to preserve that very interesting ancient monument and prevent buildings and unsightly huts being erected round it, and it would have saved the public from a heavy sum which had to be raised to acquire the land. Had the land been acquired by arbitration, the amount of compensation, he had no doubt, would have been very much smaller.

In clause 2 there was provision for compensation and betterment. It was not anticipated that there would be many claims for betterment. Clause 3 gave power to the Commissioners to contribute to the expenses of local authorities making schemes which would have the effect of protecting the surroundings of ancient monuments. Clause 10 prohibited the export in whole or part of an ancient monument, whether it was an occupied dwelling-house or not. This was a new provision, which might be subjected to certain criticism. Houses had been taken down and exported, and others had had valuable features wrenched away and exported. The number of those cases had not been very great, but with the advance of engineering there would be no difficulty about shifting a house from one continent to another, and it was thought desirable to make provision to prevent that eventuality.

Apart from the clauses dealing with acquisition of land round ancient monuments, compensation and betterment, and prohibition of export, the Bill only consolidated and slightly strengthened the existing Act. The proper preservation of these ancient monuments, which were historical links with the past, and many of which, by their intrinsic beauty, gave the highest pleasure to thousands of visitors, was a work which was receiving the sympathy and approval of an increasing number of people. His Majesty's Government therefore thought it to be their duty to extend, and, where needed, to consolidate their powers in order that they might discharge their trust with an efficiency which would gain general public approval.

Lord Davenport expressed sympathy with the purpose of the Bill, but he considered that the clause giving the Commissioners power to make orders prohibiting export was too wide.

Lord Ponsonby said he would be very ready to pay attention to any criticisms which might be made in Committee. The idea was that the Commissioners should have some hold in notorious cases where monuments of great value, or some part of a house of great value to the nation, was going to be stripped and exported.

The Bill was read a second time.

ÆSTHETICS AND CONSTRUCTION

BY HOWARD ROBERTSON

IT is, perhaps, inevitable that the architect and the engineer should regard structure from a slightly different angle. The architect is first and foremost an artist, or should be; although few architects will willingly admit it, for fear of the inferences which critics may draw. For in spite of much evidence to the contrary, the artist is always supposed to be completely inept in practical and business matters. The engineer is primarily a scientist. There is a fundamental difference in the approach to building problems of the artist and the scientist.

The artist has what is called inspiration. He is faced with a concrete task, or provides himself with an imaginary one. He steeps himself in the problem. And then—and here is the important point—he eventually has a vision, inchoate, perhaps, of a conception. Ill-defined, vague, it nevertheless exists. Its contours are not sharp, its substance is elusive, but nevertheless the idea is there, the vision is persistent if remote.

From this vision of form, the artist passes by gradual processes towards realization. What in the beginning is abstract gradually becomes concrete. Concentration of the mind, and a perpetual concern with the problem in hand, slowly bring definition. The veils are lifted one by one; the misty conception becomes with each process more defined. Impressionism hardens into precision. And out of an abstraction has come reality.

With the scientist the process is reversed. The scientist loves facts and data. He starts therefore with definitely formulated elements of fact. But he uses them not as a collector for the mere joy of their display but to create visions. The scientist, with his basis of exact knowledge, reaches out into the realm of the imponderable. He is looking for phenomena above and beyond his data, his mind is haunted by possibilities which are visions. He is like an airman who, in a machine of proved capacity, is ready to fly into the unknown.

Architect and engineer are complementary. The former offers to the latter some satisfaction of the abstractions which the scientist craves. The latter helps the former to the realization in concrete form of his imaginings.

So, in the practice of architecture, design and structure represented by the architect and the engineer go, and always have gone, hand in hand.

The first element of architectural design is the conception arising from the programme answering the purpose and function of the building. The second is the structure by means of which the answer to the programme is realized. The third element is that of æsthetic pleasure, by means of which building, played upon by the forces of humanism, is raised to the status of architecture.

All these three are mutually sustaining. In structure alone is not to be found the soul of architecture, even though it be completely satisfactory from every scientific aspect. The corollary: a thing which functions perfectly is not of necessity beautiful. You ask me to quote an example; and I offer you a petrol pump and a gasometer. In good structure, however, reside potentialities for æsthetic satisfaction. Rhythm, harmony, proportion, are elements of eye pleasure. And a system of order lies behind the abstraction of these qualities.

But for structure to be transmuted into architecture, it must be galvanized by imagination into life. The complete satisfaction of material requirements will not, by itself, achieve architecture.

Outwardly and for the purpose of definition, architectural development may be classified according to structural changes.

The most fundamental change has taken place in structure. The introduction of exact engineering science, as applied to structure, substituted empiricism and rule-of-thumb which for centuries had fettered architectural design.

Never before had exact calculations, mathematical certainties as regards structure, been available. Engineering science gave to architecture a freedom which it had never known.

The possibilities of structure in the past have been a constant source of inspiration. But today they are more than that. They are an urge, a compelling force. For the first time in history they not only meet a demand, they begin to create it. Knowing that we can bridge vast spaces, and build towards the sky, there is felt the itch to do so. Each new progress in structure creates the urge to use it.

Structure, therefore, stands today in a position of pre-eminence. So compelling is its interest that the demand to acknowledge it, as an element of significance, is becoming general. But the reasons for doing so must not be confused with those which have often in the past been advanced. They are æsthetic and practical reasons, not ethical reasons.

We find two categories of problem in the matter of treating structure. In solving the first, we base our solution on the assumption that the structure is not a major element of interest. In the second, we regard structure as almost completely responsible for the form which the building takes. Even in the latter case, it does not follow that structural elements need be exposed. They may be enclosed, hidden by decoration, but such decoration will make mute acknowledgment of the structural form beneath.

In the first category I place the commonplace structural framework of such buildings as medium-sized houses, flats, office buildings, sheds, garages, and so forth. An ordinary steel roof truss, an occasional stanchion, give one no thrill. They are interesting, but not more so than the wires of a piano. I do not want to have these vertebræ thrust forcibly under my nose. They are functional necessities which, though perfectly designed for use, have a very minor intellectual or emotional interest.

When, however, the small office of four or five stories becomes a thousand-foot skyscraper, my mental attitude alters. The physical daring involved in the erection of such a building captures the imagination. Structure so light and delicate, yet so strong and aspiring, is, I feel, worth exhibiting. Let me have, as I pass by, the sensations of this wonderful engineering organism.

This demand is the more urgent since, in the course of building, I have seen the steel structure grow. Its fragile network of members, its ordered complexity, which has enough of mystery to be poetic, has a beauty which is so often lost in the finished building.

Obviously the steelwork cannot be exposed. The architect therefore attempts to clothe it in the materials at his command, and to give to its form some suggestion of the structural vitality within. Sometimes he is successful, as in the Woolworth building, the Gothic trimmings of which are as appropriate as any other trimmings. At other times he suggests his structure by line, as in the Pan-Hellenic Tower, or by choosing forms which are only realizable in steel or concrete, as in the telegraph offices at Stuttgart. At other times he neglects expression of structure quite frankly and concentrates on the beehive character of the big office building, as in the Buhl building and dozens of other large office buildings in New York and Chicago.

Many attempts have been made to leave structure exposed and make of it

a decorative element. And the least successful are those which depart most radically from the character of steel or concrete.

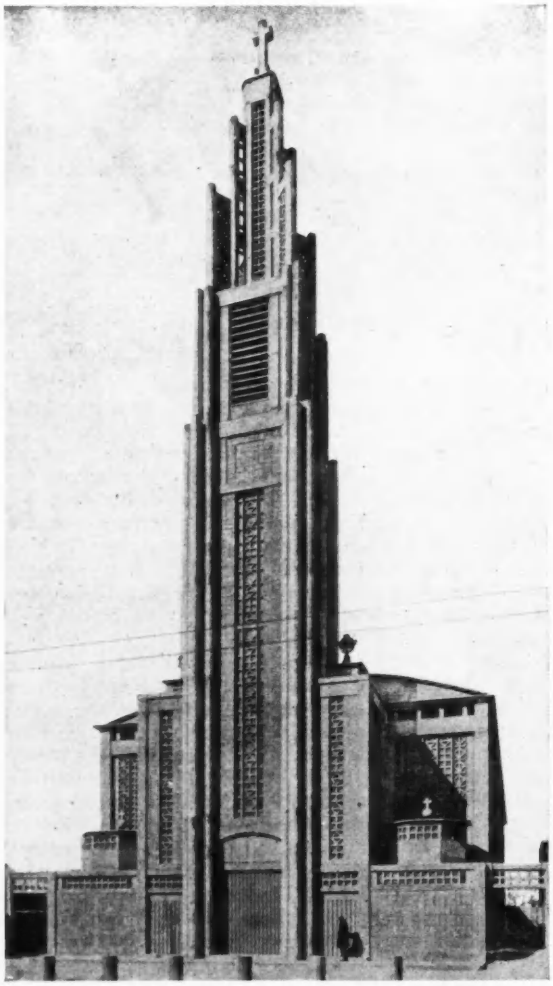
Where steel or concrete is shown without embellishment, success rests on a surer basis. But here the æsthetic treatment makes greater demands, for the designer comes face to face with a problem which must be solved without subterfuge. And this is the problem of evolving structure which is not only materially perfect but which also achieves the nearest possible approach to beauty of form. Fortunately for the engineer, forms which are satisfactory from a scientific standpoint are frequently satisfactory to the eye.

The modern movement has encouraged the recognition of structure, because of its reaction against superfluities in general. Where economy is a necessity, only fundamental elements remain. And where architectural interest is desired, the form of structure inevitably receives attention. The tendency is towards frank acknowledgment, and the consideration of structure from the dual aspect of strength and æsthetic quality. An instance is the Transbordeur Bridge at Marseilles, strong, yet airy and delicate.

Concrete can also be handled with imagination and without disguise. And here tribute must be paid to the brothers Perret, of Paris, architects, engineers and builders. Their optical workroom, the garage in the rue Ponthieu, and their churches at Le Raincy and Montmagny show how closely structural and decorative form can be intermarried. In all these buildings economy in cost has governed.

Even in domestic architecture the new freedom is occasionally effecting a profound metamorphosis in accepted types. The French architects, Le Corbusier and Jeanneret, for instance, have advanced the ideal of façades and plans liberated from the restrictions of solid weight-bearing walls usually assumed as necessary for structural support.

Structure here is frankly accepted, and columns are not considered an objection. They run up through the rooms, as do the flues, and serve also to house the down pipes from the roof. For these architects drain their flat roofs from the centre, arguing with justice that in freezing weather it is in the centre of the roof that thawing



Notre Dame du Raincy.] [*By Auguste Perret and Brothers.*

"Concrete can be handled with imagination and without disguise . . . tribute must be paid to the brothers Perret, of Paris, architects, engineers and builders. Their churches at Le Raincy and Montmagny show how closely structural and decorative form can be intermarried. In all these buildings economy in cost has governed."



The Woolworth Building, New York.] [*By Cass Gilbert.*

"Obviously steelwork cannot be exposed. The architect therefore attempts to clothe it in the materials at his command, and to give its form some suggestion of the structural vitality within. Sometimes he is successful, as in the Woolworth building, the Gothic trimmings of which are as appropriate as any other trimmings."

sets in, and in consequence that is the logical site for a sump.

The architectural effect of this house is revolutionary. Yet it is the direct outcome of the structural system employed. There is a growing recognition today of the fact that structural developments can assist the architect towards the realization of ideals which are, it is true, only of recent birth.

Today, the flexibility of modern structure is influencing design. The possibilities of mushroom construction, of the cantilever, are bringing out an expression which is not only real, but one which also percolates into the realm of furniture and the smaller details of decoration.

[Paper on "The Æsthetic Side of Structural and Constructional Engineering," by Howard Robertson, F.R.I.B.A., S.A.D.G., read before a meeting of the Institution of Structural Engineers on Thursday last.]

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

The Agricultural Land (Utilisation) Bill

THE Agricultural Land (Utilisation) Bill, which authorizes the Government to set up an Agricultural Land Corporation to acquire land for demonstration farms, is now before a Standing Committee of the House of Commons; and last week Mr. Ormsby-Gore, a Unionist member, moved to provide that, among the classes of land which the Corporation may be prohibited from acquiring, shall be included land "declared by resolution of the local authority concerned to be required for the purpose of the preservation of rural amenity," or land which "is the site of an ancient monument or other object of archæological interest." As to the first part of the amendment, he gave as an example Lord Astor's farm at Cliveden, which abutted on the Thames, and, by special arrangement with the local authorities concerned, had been declared as a private open space, not to be taken for public purposes.

It was very desirable that, in the many necessary economic developments of the modern age, they should not sweep away these beauty spots. As to ancient monuments and objects of archæological interest, not all of them were scheduled yet. The process of scheduling was still going on. In counties like Wiltshire there were many of these objects. The notorious example, of course, was the tragedy of Avebury, the greatest of our stone-circles—greater and more historically important, even, than Stonehenge. Avebury had been literally turned into a farm. Some of the stones had been used for building the farm, and others had been cleared off without any safeguard at all.

Dr. Addison, the Minister of Agriculture, said he was fully in sympathy with the amendment, and, as Chairman of the National Parks Committee, he knew a good deal about the matter. In the case of the arrangement with Lord Astor, the spot would eventually be scheduled as a planning scheme.

If any area or beauty spot were so scheduled, and were acquired by the Corporation, the provisions of the Town Planning Act would apply just as much as if the land had been bought by a private purchaser. The Corporation would be in exactly the same position as a private owner. He could not accept the first part of the amendment, as the words would mean that the Corporation would be at the mercy of any local authority that happened to say that certain land was a beauty spot. He would, however, look into the matter and see what could be done. As to the second point, many ancient monuments had already been scheduled and could not be taken by the Corporation. But the wording of the amendment would prevent the Corporation from acquiring, say, an area of land in the middle of which there might be a ruin or an old abbey. He agreed that the Corporation should be subject to as strict a control as any other owner of land, and, indeed, should be a bit more meticulous as to their proceedings. If Mr. Ormsby-Gore would withdraw his amendment he would go into the matter and see what could be done.

On this understanding the amendment was withdrawn.

Houses and Housing Materials Bill

Mr. McGovern asked leave to bring in a Bill to provide for the provision of houses and housing materials by a national housing authority. He said it was generally admitted that the only thing of which there was a shortage in this country was housing for the common people, and he desired to bring in the Bill to meet that shortage. It would be necessary to acquire land throughout the country, and to get control of factories in order to provide for the materials that would be essential. The control of all factories would be essential, so that the object of the Bill, to provide houses at cheap rentals, would not be defeated by those who were in control of materials raising prices unduly high. Materials would be produced at low prices in national factories.

He maintained that local authorities at present were dominated and controlled by property owners, who did everything in their power to prevent the erection of working-class houses on a large scale, because it would tend to reduce rents and prevent them from acquiring the great profit which they desired. There were in this country 150,000 unemployed men who were trained in the art of building houses. They took every week £250,000 from the Unemployment Exchanges, for which the nation got no return. It would be better to put that money into a great housing scheme, and he proposed a five years' plan to deal with the housing shortage. For that it would be essential to provide a loan of £500,000,000, so that £100,000,000 could be spent annually. £50,000,000 of that would be spent in labour, so that they could put forward an army of 350,000 men to provide houses. They would work for five years for £3 a week average wage. This scheme would reduce unemployment and provide houses.

Leave was granted by 161 votes to 100, and the Bill was brought in.

Housing Progress by Local Authorities

At question time Dr. Hastings asked the Minister of Health if he could give the number of houses built by local authorities to date with the help of subsidies under the Housing Act, 1923, and the Housing Act, 1924, respectively.

Mr. Greenwood said that financial assistance under the Housing, etc., Act, 1923, was only available in respect of houses completed by September 30, 1929. The number of such houses completed by local authorities in England and Wales was 73,895. Up to October 31, 1930, 313,862 houses had been completed by those local authorities under the Housing (Financial Provisions) Act, 1924.

Government Contributions under Housing Acts

Mr. Greenwood informed Sir D. Newton that the exchequer contribution paid during the year 1929–30 under the Housing Act of 1919 was £6,738,118; under the Housing Act of 1923, £2,141,089; and under the Housing Act of 1924, £2,253,087. The numbers of houses completed under each Act at March 31, 1930, were respectively 175,639, 389,193 and 232,900. The Exchequer contribution paid to local authorities under the Housing Act of 1926 during the year 1929–30 was £509, and the number of houses reconstructed by the end of the year was 1,922.

Importation of Bricks

Miss S. Lawrence informed Mr. L. Smith that 207,041 thousand bricks were imported into this country during the year ended October 31, 1930, which might be taken to be approximately 5 per cent. of the annual production of bricks in this country. The total c.i.f. value of these imported bricks was recorded as £500,088. She had no information of the extent to which those bricks had been used for State-assisted housing schemes.

THE SKETCH CLUB

EIGHTEENTH SESSION



By E. B. Musman. (Pencil).
The Market Square, Stow-on-Wold, Glos.



By E. B. Musman. (Pencil).
A corner of Wilton, near Salisbury.

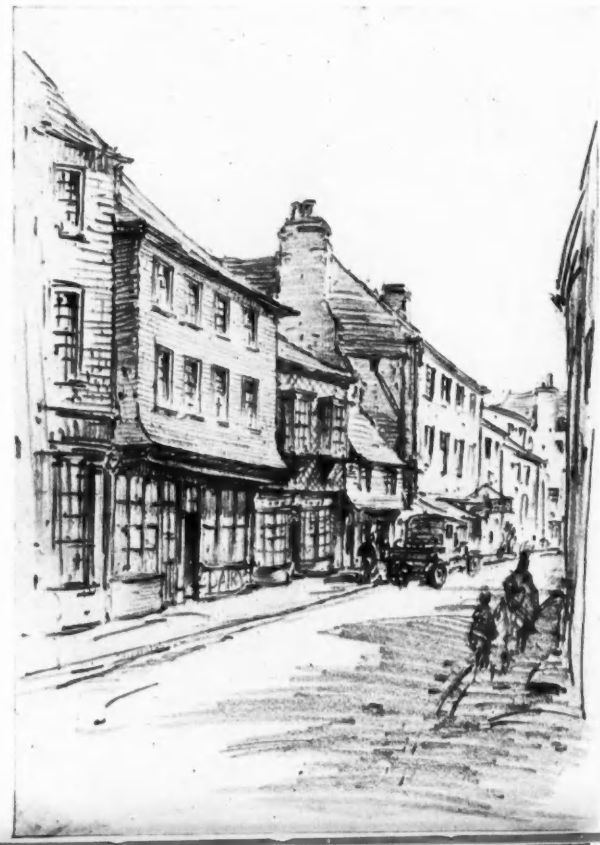
THE Sketch Club has now existed long enough for readers to recognize the hands of "original members." On this page are exhibited examples from two whose names will be familiar, and the subjects may safely be left to speak for themselves. On its fellow we are privileged to present a number of the pencil sketches of Maxwell Scott, together with some in pen-and-ink by Edwin Gunn, that these two artists contributed to *A Short History of Ruislip*, reviewed on page 920 of the present issue.



By E. B. Musman. (Pencil).
Dartmouth.



By J. D. M. Harvey. (Pencil).
Thatched cottage at Charlton.

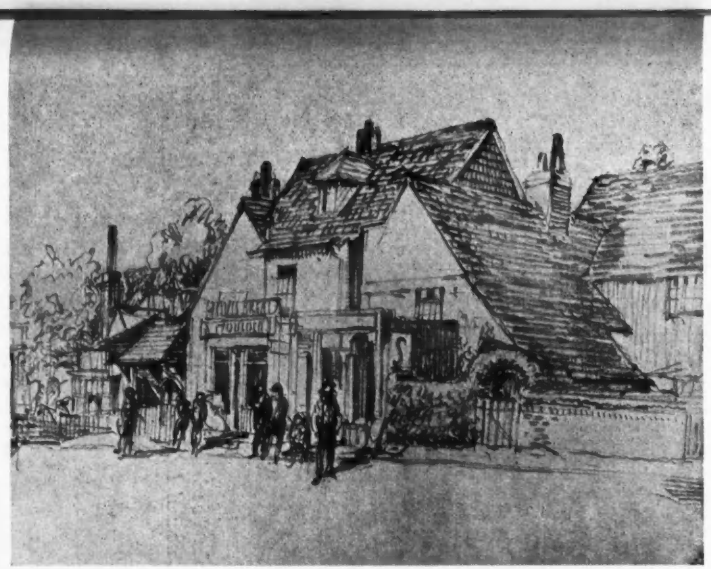


By E. B. Musman. (Pencil).
Totnes.



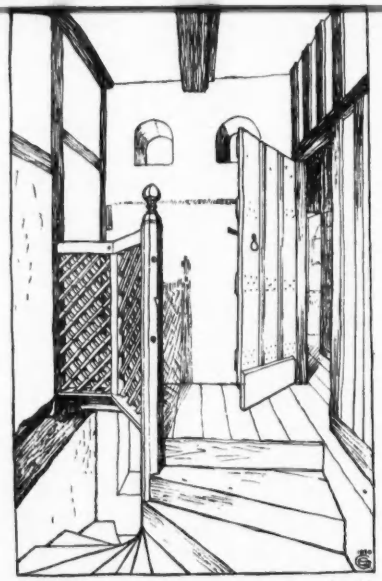
By E. B. Musman. (Pencil). *Dartmouth.*

By E. B. Musman. (Pencil). *Totnes.*



By Maxwell Scott. (Pencil).

Part of the High Street, Ruislip.



By Edwin Gunn. (Pen and ink).

Head of the Old Staircase, Manor Farm, Ruislip.



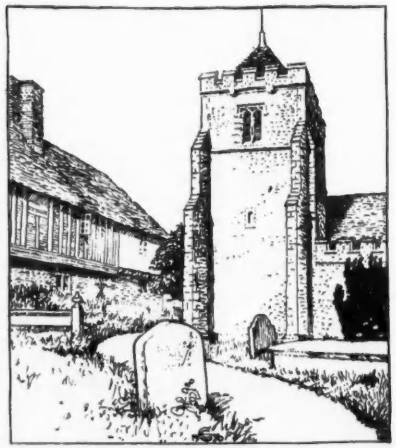
By Maxwell Scott. (Pencil).

The George Hotel, Ruislip.



By Maxwell Scott. (Pencil).

Part of Ruislip Village.



By Edwin Gunn. (Pen and ink).

Tower and Priest's House, Ruislip.



By Maxwell Scott. (Pencil).

At the back of "The Swan," Ruislip.

LITERATURE

EASEMENTS OF LIGHT

THIS book is based on a series of articles by the author published in THE ARCHITECTS' JOURNAL during 1926. It is, however, very far from being a reprint of these articles, for much has been rewritten and still more has been added with the object of providing, in a convenient form, a large amount of information regarding the methods now available for computing the losses under consideration in any easement of light case. As the author states in his preface, he has described what he himself considers to be the best modern methods of assessing damage resulting from deprivation of light. As to the importance of the subject there can be no two opinions. The large sums involved in claims for compensation, and the long-continuing character of the damage, if such there be, make it imperative that decisions should be based on accurate and scientific data, and not on guesswork or the application of some empirical rule or set of rules.

The first chapter of the book, occupying fifty-seven pages, forms an excellent historical review and is an interesting record of the progress made between the time of Prof. Robert Kerr's paper before the R.I.B.A. in 1865 and the introduction of the conception of "daylight factor" by Messrs. A. P. Trotter and P. J. Waldram some twenty-two years ago. Chapters II and VIII are devoted to a description of photometric instruments and methods. The former contains an excellent description of the Holophane Lumeter and its accessories, and of the more elaborate instrument used at the National Physical Laboratory. Chapter VII is reprinted from a paper read by Dr. J. W. T. Walsh before the Institution of Electrical Engineers in 1927.

The principal subject-matter of immediate practical interest is contained in Chapters III to VI. The first of these chapters deals with daylight factors, their calculation and measurement, and with the manner in which daylight illumination has been found to vary with the time of day, season of the year, aspect and meteorological conditions.

Chapter IV describes the construction and use of diagrams by means of which the amount of light admitted by any window opening, or excluded by the erection of any proposed structure opposite a window, may be calculated exactly for any given point in a room. These chapters are very fully illustrated with examples of the manner in which such diagrams are employed in practical cases.

Chapter V shows how such calculations are used in the preparation of plans in which a floor area is divided by contour lines of daylight factor into areas of "good," "adequate" and "inadequate" lighting. The alteration of these areas due to the erection of some proposed structure forms the basis for the assessment of compensation for infringement, and this matter is elaborated in Chapter VI. The figure reproduced is an example of the use of such diagrams. It shows plans prepared by the author and submitted in arbitration to show the original and ultimate conditions of natural lighting in an office in Savile Row, London.

There are twelve appendices giving respectively (i) a bibliography of the subject; (ii) a list of principal legal cases; (iii) a description of the terminology used in illumination; (iv) the transmission of various window glasses; (v) a description of a daylight factor meter; (vi) the brightness of various light sources; (vii) the illumination required for various purposes; (viii), (ix) and (x) the reflecting powers of various materials; (xi) the hours of artificial lighting; and (xii) the total hours of lighting for the latitude of Greenwich.

Dr. G. H. B. Kenrick, K.C., contributes an appreciative introduction, which he concludes with the significant words: "Not only is the subject one of scientific and technical interest, but it will prove, also, to be one of great practical value."

It only remains to add that the book is well printed and is a very creditable example of the publisher's art.

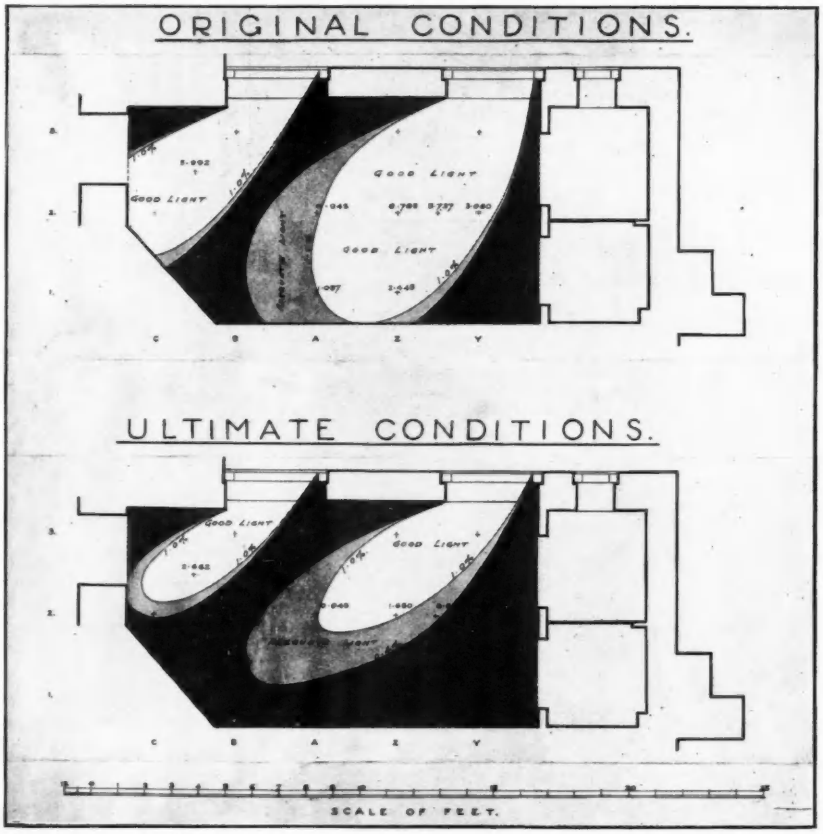
J. W.

Easements of Light. By John Swarbrick. London: B. T. Batsford, Ltd. Manchester: The Wykeham Press. Price 21s. net.

A SHORT HISTORY OF RUISLIP

IT is pleasant to feel that, in a world of machinery, speed and insincerity, there are still a few persons who can spare time to delve below the surface of life, where human beings take towns, buildings and roads as a matter of course, and have not the leisure or the inclination to wander in the past history of the towns they inhabit, and bring to the public eye a history as interesting as that of "The Manor of Ruyslepe."

In *A Short History of Ruislip* Mr. J. T. Cattle traces in some detail the history of this village from the formation of the strata on which it lies, through the Roman Conquest into the hands of the Normans, through the First Crusade



From Easements of Light.] [*By John Swarbrick.*

Daylight plans, prepared by Mr. John Swarbrick and submitted in arbitration, to show the original and ultimate conditions of natural lighting in an office in Savile Row, London.

into the fifteenth century when "the King granted to the Provost and the Scholars of King's College the 'Manor of Ruyslepe with a plot called Northwood and all lands belonging,' and on until the present day when 'despite ruthless road-widening, the centre of Ruislip Village still retains a great deal of its old-world character and many of its ancient buildings.' This is particularly true of the buildings surrounding the Church, which yet stands in mediæval setting."

One can surely indicate the commendable efforts of the Ruislip Association as an example of what Government supervision, employed with a nicety of discretion, can do to make or mar a district. If only more local authorities would take it upon themselves to bear the burden of rural preservation, there might be some hope for London and its suburbs a century or so hence.

The primary purpose of the handbook now under review is to stimulate an already strong local interest in the historic buildings of Ruislip, to provide a pictorial record of prominent examples of ancient buildings, and to secure the interest of owners and public bodies in the preservation of these. It contains 32 pages of text, interspersed with delightful drawings by Mr. Maxwell Scott, A.R.I.B.A., and Mr. Edwin Gunn, A.R.I.B.A. The latter has also contributed some notes on the village.

To all interested in old villages I commend this booklet. M. G. G.

A Short History of Ruislip. The Ruislip Association. Copies obtainable from A. L. Dawson, "St. Mary's," Wood Lane, Ruislip. Price 1s. (Post free 1s. 3d.)

SOCIETIES AND INSTITUTIONS

PLACES OF ENTERTAINMENT

AT a meeting of the West Yorkshire Society of Architects, held at Leeds, a lecture entitled "Places of Public Entertainment" was delivered by Mr. W. Milburn (Jun.), B.SC., F.R.I.B.A. Mr. Norman Culley, F.R.I.B.A., presided.

Mr. Milburn indicated briefly the Acts which related to these premises; considered certain typical regulations which, framed under these Acts, governed the construction and design of the premises so far as the safety, comfort and convenience of the public, performers and staff were concerned; and illustrated by examples of recently erected premises the practical application of the regulations to the actual buildings.

In the design and construction of any place of public entertainment, said the lecturer, the primary consideration to be kept in view was the safety of the public, performers and staff. The first factor which affected this aim was the site of the building. The island site was ideal, but not always attainable. The L.C.C. Regulations required that the premises abutted upon and had frontages of adequate length to two or more thoroughfares.

The frontages, except in special circumstances, should form about one half of the total boundaries of the site of the building, and permit of the provision of suitable exits from each tier or floor, direct to two or more thoroughfares. The thoroughfares were to be of such widths as would enable the persons accommodated in the building to disperse rapidly in the event of fire or panic, and afford facilities for the approach of fire appliances. There were exceptions to this general rule in cases where there was no stage to the building, and the numbers accommodated were under 2,000, it being permissible for the premises to abut upon only one thoroughfare, provided open passageways of certain definite widths were provided around the remainder of the premises.

Referring to the entrances and exits, he explained, all doors or openings approved by the licensing authority for the purposes of egress from the premises, and all such doors from the stage and dressing-rooms, had to be clearly indicated by the word "EXIT" in block letters, usually not less than seven inches high.

The L.C.C. were most particular that doors and openings, other than exits in sight of the audience, should not resemble exits, and they did not permit notices bearing the words "NO EXIT" to be provided.

In spite of all the thought and care which was devoted to render places of public entertainment safe for the public, there still remained the human element to control, and the risk of panic. The audience should have confidence in the building, and know that everything possible had been done for their safety, and that in any circumstances there was no need to take panic or alarm. It was desirable to familiarize the patrons with all exits so that they had knowledge of egress other than by the way they entered. The system in some American cities of numbering the exits and printing on the programmes plans of the floors and tiers showing the exits, was a step in this direction, for if only a few members of the audience studied the plans they would, if an emergency arose, be able to guide sections of the audience away from the building. Plans of the building placed in the foyers, or other public places, showing the exits and surrounding streets might also be of advantage. The more simple the planning and design of the building so that the public could easily grasp and understand their way about, the less risk there would be of panic or alarm.

Mr. Victor Bain, in proposing the vote of thanks, spoke of the difficulty of planning exits for buildings which were designed for more than one purpose.

In seconding the vote, Mr. G. H. Foggitt spoke of the various sets of plant and machinery, often placed fifty feet below the ground level, which were inseparable nowadays from such buildings. What had always struck him was the difficulty of combining good architecture and the necessary spaces for posters on the façades, which were often insisted upon by the building-owners. He felt that lurid posters were surely not necessary.

The lecturer, in reply, said he was afraid that control over such advertising could only become effective through bylaws framed to that end.

QUANTITY SURVEYORS AT DINNER

The second annual dinner of the quantity surveyor members of the Surveyors' Institution was held at the Connaught Rooms on Wednesday last.

Mr. J. E. Drower, who presided, referred to the profound changes since mid-Victorian days. Surveyors, he said, had changed with the rest of mankind. In those days, buildings they had to do with were not the steel and concrete constructions of today, full of pipes and wires and elaborate machinery, arrangements for heating and arrangements for cooling, contrivances for keeping out sound and telephones for letting it in, plenum and vacuum ventilation, electrical installations for power, for light, for heating and cleaning and so forth. Every day seemed to bring forth some new invention, some new form of floor, waterproofing, plaster or paint or decorative material, so that a big building was almost like a battleship, obsolete before it was finished. Surveyors must keep up with these new things, and translate them into proper surveying terms.

Nothing was more marked than the changes in the relations of employer to employed and in acknowledging the mutuality of the arrangements between contracting parties. In the relations of architect, building-owner and contractor, this spirit, if not always reflected in the contract documents, was active, and contracts were interpreted more equitably than formerly. One result of this was that the quantity surveyor's position was becoming more and more arbitral, and of increasing importance in holding the balance true between two interests. This was an honourable position calling for the best qualities of technical knowledge and character.

After the loyal toasts, Viscount Burnham proposed "Architecture and the

Building Trade." He remarked that he was out of a job for the time being, but if he ever returned to industry he would enter the building trade. When things were in the worst state of depression, the building trade continued to prosper. He believed that, although modern architecture was often criticized, the appreciation of the beautiful today was no less than it had ever been. He spoke of the beauty of the new Liverpool Cathedral, and concluded by saying that unless we had the willing service of the architects and building contractors, we were destined to fail.

Replies to Viscount Burnham were made by Dr. Raymond Unwin, F.R.I.B.A., Mr. Arthur Costain and Mr. Thomas Barron. Mr. J. Theobald proposed "The Guests" and Sir Richard Allison responded.

The last toast, "The Chartered Quantity Surveyor," was proposed by Sir John Tudor Walters, M.P.

FACULTY OF ARCHITECTS' AND SURVEYORS' ANNUAL DINNER

The fourth annual dinner of the Faculty of Architects and Surveyors was held at the Hotel Metropole on Friday last. Mr. E. F. Harmer, F.S.I., F.F.A.S., president, presided over about 200 members and guests.

After the loyal toast had been proposed by the president, Sir Clement Cooke, Bart., proposing the "Faculty of Architects and Surveyors," recalled that he was actively connected with the efforts that had been made to place the Architects' Registration Bill upon the statute book. The architectural profession had very important duties to fulfil, not only to their clients, but to the community at large. The increased use of steel and concrete demanded greater knowledge and more scientific training. In conclusion, Sir Clement said more elasticity was required in the matter of bylaw regulations affecting building.

Mr. Harmer, in response, said the membership of the Faculty had not yet reached four figures; they were within ten of the thousand, and by the end of 1930 they would no doubt have passed their immediate objective and be in a position to bring into operation a system of entrance by examination, an objective which he felt was the soundest one the Council of the Faculty could aim at to consolidate the position it had already attained.

The "Guests and Kindred Societies" was proposed by Mr. W. G. Percy and responded to by Mr. R. H. Stanger, A.M.INST.S.E. The last toast, "The Ladies," was given by Major W. P. Reynolds, O.B.E., and replied to by Miss Harmer.

After the speeches dancing took place, in the middle of which an enjoyable cabaret show was given.

MODERN TENDENCY IN STEEL CONSTRUCTION

The modern tendency and the use of reinforced concrete was the subject of a lecture by Professor C. H. Reilly, F.R.I.B.A., at a meeting of the North Staffordshire Architectural Association.

Professor Reilly directed attention to the tendency to let steel construction speak for itself and not to hide it under a "sugar coating" of stone or brick. It was allowing the material to express itself naturally in the same way that a mediæval cathedral did. He thought the new Olympia extension was a very fine thing, but he wished Mr. Emberton would pull down the rest of Olympia and go on with his work !

In speaking of New York, the lecturer explained that the congestion was not the sole reason nor the most important reason why New York built high. It was that it is quicker to travel vertically in a lift than horizontally in crowded streets.

The vote of thanks to the lecturer was proposed by Mr. Gordon M. Forsyth, and seconded by Mr. John Hughes.

PERSIAN ART

At the suggestion of the organizers of the International Exhibition of Persian Art, which will be held at Burlington House in January and February, 1931, the Council of the R.I.B.A. has arranged a public lecture on Persian Art, to be given by Mr. Arthur Upham Pope at the R.I.B.A., 9 Conduit Street, W.1, on Thursday, January 15, 1931, at 5.30 p.m.

THE ROYAL GOLD MEDAL

The R.I.B.A. has been notified that His Majesty the King has graciously approved the award of the Royal Gold Medal to Sir Edwin Cooper, A.R.A., F.R.I.B.A., in recognition of the merit of his executed work. The medal will be presented to Sir Edwin Cooper on Monday, March 2, 1931.

RHEIMS CATHEDRAL

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts on Wednesday last, described Rheims Cathedral, and showed how all the principles of Gothic architecture, at the period of its great perfection, were exemplified in the construction and adornment of this magnificent cathedral.

UNSATISFACTORY ELECTRIC TARIFFS

One of the most unsatisfactory matters in connection with the public supply of electricity was the extraordinary diversity of the tariffs employed, and the remarkable ingenuity of many of the "designers of such tariffs," said Mr. E. G. Phillips, M.I.E.E., M.I.MECH.E., at a meeting of the Institution of Heating and Ventilating Engineers, in discussing the cost of operating industrial and private electric generating sets compared with public supply.

His contention was that the supply companies' engineer was usually too scientific to be commercial.

Mr. Phillips pleaded strongly for the supply authorities to "commercialize" their present "scientific" tariffs or at least make an honest endeavour to educate the prospective consumer by giving one or two practical examples on their literature.

ROYAL INCORPORATION OF ARCHITECTS

At a meeting of the Council of the Royal Incorporation of Architects in Scotland, held in Edinburgh, the following were elected to the membership of the Incorporation: *Fellows:* Messrs. R. R. Grieve and J. F. Matthew. *Associates:* Messrs. J. B. Couper, G. M. Thomson, and J. D. Vardy; *Student:* Mr. Duncan Livingstone.

LAW REPORT

ARCHITECT'S CLAIM FOR FEES

Adamson v. *Purkis. King's Bench Division. Before Mr. Justice McCardie*

A SETTLEMENT was arrived at in this action which was by Colonel James Edgar Adamson, an architect, of the Meadway, Golder's Green, against Mr. William Purkis, of the Palm Court Hotel, Torquay, for professional fees.

Plaintiff claimed £4,261, the balance of fees for services rendered in connection with the proposed alterations to the Palm Court Hotel.

The defendant denied that the money was owing. He alleged that Colonel Adamson "stood in" with him in a £300,000 scheme to make Palm Court the finest hotel at Torquay, and that Colonel Adamson's fees were to be paid by a company to be formed to take over the hotel.

Colonel Adamson denied this and said that he had always looked to the defendant personally for the payment of his fees.

Mr. Fortune appeared for the plaintiff and Mr. Monckton for the defendant.

In announcing the settlement, Mr. Monckton said it was agreed that there should be judgment for Colonel Adamson for £400 in full settlement of all claims. The plans were to be returned to Colonel Adamson and each party to pay its own costs.

Mr. Fortune, for the plaintiff, concurred in the settlement and his lordship approved of it.

COMPETITIONS OPEN

December 25.—The international competition for the Ukrainian State Theatre, organized by the Kharkov Town Council, Russia. The competition will be assessed by a jury comprising a president, vice-president and fifty-six members. Prizes: 1st, 10,000 rub.; 2nd, 8,000 rub.; 3rd, 6,000 rub.; 4th, 5,000 rub.; 5th, 4,000 rub.; 6th, 3,000 rub.; 7th, 8th and 9th, 2,000 rub.; 10th, 11th, 12th, 1,500 rub. Drawings should be

sent to the Kharkov Town Council on or before December 25.

January 7.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.: Edward H. Fryer, and Walter Groves. Prizes: 50 guineas, 20 guineas and 10 guineas for first, second and third places, respectively. Smaller awards may also be made on the advice of the assessors. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: January 7, 1931.

January 10.—The Bermondsey B.C. recently invited competitive designs for a proposed new medical clinic in Tower Bridge Road, S.E. Premiums: £250, £150 and £50 for first, second and third place, respectively. Designs should be submitted to E. Goff Clark, Town Clerk, Town Hall, Spa Road, Bermondsey, by January 10, 1931.

January 15.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Latest date for submission of designs: January 15, 1931.

January 31.—The Coventry Corporation invites architects to submit competitive designs for a new Hospital for Infectious Diseases. Architects competing must be established in private practice. Assessor: E. Stanley Hall, M.A., F.R.I.B.A. Premiums, £300, £200 and £100, for designs placed first, second and third, respectively. Particulars may be obtained from Frederick Smith, Town Clerk, Council House, Coventry, until January 31. Deposit £1 1s. Latest date for submission of designs: April 30, 1931.

February 1.—The Norwich Corporation invites architects practising in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

February 12.—Messrs. Venesta, Ltd., invite practising architects and designers to submit preliminary designs for a stand at the Building Trades Exhibition at Manchester. Assessors: Messrs. Christian Barman, H. de C. Hastings, W. L. Wood, Henry Rutherford, and Professor A. E. Richardson. Premiums: 1st, £100, and £10 each to the four competitors placed next in order. Full particulars may be obtained from the Editor of THE ARCHITECTS' JOURNAL, 9 Queen Anne's Gate, S.W.1, or direct from Venesta, Ltd., Vintry House, Queen Street Place, London, E.C.4. Latest date for submission of designs: February 12, 1931.

April 1.—An international competition for the development of the uses of aluminium and its alloys, open to inventors of any nationality, is to be held annually by the International Aluminium Bureau. The competition will be divided into two sections. The prizes to be awarded are 25,000 French francs for the entries under Sections A (methods of working or using the metal) and B (manufacture of articles therefrom) respectively, and 50,000 French francs to the author of a suggestion which has exceptional interest or value under either section. Entries may be submitted between January 1 and April 1, 1931. Full particulars are obtainable from the Bureau International de l'Aluminium, 23 bis, Rue de Balzac, Paris, France.

THE ARCHITECTS' DIARY

WEDNESDAY, DECEMBER 17

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of photographs of buildings visited on the A.A. Excursion to Sweden and Denmark. Until December 20. Pantomime Matinee, 2.45 p.m. (Evening Performance, 8.15 p.m.) Also December 18 and 19. **2.45 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "French Mediæval Architecture: Fortified Towns, Castles, Hotels-de-Ville." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. (Lantern Illustrations.) **6 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Students' Meeting. "Underground Haulage in Mines." By Professor Douglas Hay, M.C., B.SC., M.INST.C.E. Chairman: Sir William Ellis, G.B.E., D.ENG. **6.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. At the Metropole Hotel, Leeds. "Foundations, Principles and Problems—A Provocative Study." By D. Davidson, M.C. **7 p.m.**

EXHIBITION OF MODELS OF OLD LONDON. At the Golden Cross Hotel, Strand, W.C.2. The models are the work of John B. Thorp. **2.30 p.m.**

THURSDAY, DECEMBER 18

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Literature Standing Committee. **4.30 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. Teesside Sub-Centre. At the Cleveland Technical Institute, Middlesbrough. "Surge Investigations on Overhead Line and Cable Systems." By S. W. Melsom, A. N. Arman, B.SC. (ENG.), and W. Bibby, B.SC. (ENG.). **7 p.m.**

FRIDAY, DECEMBER 19

R.I.B.A., 9 Conduit Street, W.1. Meeting of the Finance and House Committee. **4.30 p.m.**

LONDON SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. "South Essex: Its Docks, Industries and Houses, London's Industrial Development." By Professor S. D. Adshead, F.R.I.B.A. (Illustrated by lantern slides.) Chairman: E. M. Dence. **5 p.m.**

SATURDAY, DECEMBER 20

Sunrise, 8.2 a.m. Sunset, 3.53 p.m.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. Visit to Partington Gas Works.

INSTITUTION OF CIVIL ENGINEERS. Students' Visit to the Stratford Works of the L.N.E. Railway Co. (Afternoon).

TUESDAY, DECEMBER 23

TOWER OF LONDON, E.C.3. "The Tower in Stuart Times and After." By Allen S. Walker. **11 a.m.**

WEDNESDAY, DECEMBER 24

R.I.B.A., 9 Conduit Street, W.1. Office and Library closed until December 27.

SATURDAY, DECEMBER 27

Sunrise, 8.5 a.m. Sunset, 3.57 p.m.

MONDAY, DECEMBER 29

R.I.B.A., 9 Conduit Street, W.1. First of two Christmas Holiday Lectures on Architecture for Boys and Girls. By the Hon. H. A. Pakington, A.R.I.B.A. (Also December 31.) **3.30 p.m.**

MONDAY, JANUARY 5, 1931

R.I.B.A., 9 Conduit Street, W.1. General Meeting. Award of prizes and studentships. T. A. Darcy Braddell, F.R.I.B.A., will criticize work submitted. **8 p.m.**

TUESDAY, JANUARY 6

L.C.C. SCHOOL OF BUILDING, Ferndale Road, Brixton, S.W.4. Exhibition of work submitted by craftsmen and apprentices for the 1930 Competition organized by the National Painters and Decorators Joint Education Committee of England and Wales. 10 a.m. to 8 p.m. (Also January 7, 8, and 9.) **10 a.m.**

WEDNESDAY, JANUARY 7

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the Engineers' Club, Albert Square, Manchester. Paper by J. Theo. Halliday, F.R.I.B.A. **7 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. "Notes on the Theory of Radiant Heating." By C. G. Heys Hallett, M.A. **7 p.m.**

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "Cautionary Guide to Liverpool and Surrounding Country." By Clough Williams-Ellis, F.R.I.B.A. **7.30 p.m.**

THURSDAY, JANUARY 8

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS. At the University, Sheffield. "Some New Buildings in Sweden and the Stockholm Exhibition." By E. R. Jarrett, A.R.I.B.A. (Tea, 5.30 p.m.) **6.15 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "Thames House." By R. Travers Morgan, A.M.INST.C.E. **6.30 p.m.**

FRIDAY, JANUARY 9

INSTITUTION OF STRUCTURAL ENGINEERS. Annual Dinner to be held at the Mayfair Hotel, W.1. 6.45 for 7.15 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Some Considerations Affecting the Construction and Reconstruction of Bridges in Urban Areas." By E. R. Knight, A.M.INST.C.E. 6.30 p.m. **6.30 p.m.**

MONDAY, JANUARY 12

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "Modern Painters." By R. Wilenski. 8 p.m. Exhibition of Examples of Modern Painting. Until January 24. **8 p.m.**

SURVEYORS' INSTITUTION, 12 Great George Street, Westminster, S.W.1. "The Restoration of St. Paul's Cathedral." By J. E. Drower, C.B.E. (Lantern illustrations).

TUESDAY, JANUARY 13

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. London and District Branch. At the Borough Polytechnic, Borough Road, Southwark, S.E.1. "Concealed Floor Heating." By John H. Francis. 7 p.m. Manchester and District Branch. At the Milton Hall, Deansgate, Manchester. "Hot-Water Heating." By R. Thorp. **7 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. North Midland Centre. At the Hotel Metropole, King Street, Leeds. "Surge Investigations on Overhead Line and Cable Systems." By S. W. Melsom, A. N. Arman, B.SC. (ENG.), and W. Bibby, B.S. (ENG.). **7 p.m.**

WEDNESDAY, JANUARY 14

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. At the Metropole Hotel, Leeds. "Some Problems in the Design of Steel Framed Multiple-Story Buildings." By V. H. Lawton. **7 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "English Mediæval Architecture: The Pre-Mediæval Periods." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. **6 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. Hampshire Sub-Centre. At the Municipal College, Portsmouth. Short papers will be read and discussed. **7.30 p.m.**

THURSDAY, JANUARY 15

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by J. Stuart Lewis, M.I.STRUCT.E., M.I.E.E. **7.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. South Wales and Monmouthshire Branch. Visit to Aberthaw and Rhos Cement Company's Works, Rhos.

R.I.B.A., 9 Conduit Street, W.1. Special Meeting. "Persian Art." By Arthur Upham Hope. **5.30 p.m.**

SATURDAY, JANUARY 17

Sunrise, 7.57 a.m. Sunset, 4.24 p.m.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. Visit to liner at Liverpool.

L.C.C. SCHOOL OF ARTS AND CRAFTS. Visit to Dorman Long & Co.'s Works, Middlesbrough. (Party limited to 90.)

MONDAY, JANUARY 19

R.I.B.A., 9 Conduit Street, W.1. General meeting. Presentation of London Architecture Medal, 1929, and medals and prizes, 1931. **8 p.m.**

INSTITUTION OF ELECTRICAL ENGINEERS. Western Centre. Annual Dinner to be held at Bristol.

TUESDAY, JANUARY 20.

INSTITUTION OF ELECTRICAL ENGINEERS. North-Western Centre. Annual Dinner to be held at the Midland Hotel, Manchester.

WEDNESDAY, JANUARY 21

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "The Mediæval Period: Plans, Vaults and Buttresses." By Sir Banister Fletcher, F.R.I.B.A. **6 p.m.**

DRAWING OFFICE MATERIALS MANUFACTURERS AND DEALERS' ASSOCIATION. Annual Dinner to be held at the Hotel Victoria, Northumberland Avenue, W.C. 6.30 for 7 p.m. **6.30 p.m.**

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "Bridges." By G. H. Jack, F.R.I.B.A., M.INST.C.E. **7.30 p.m.**

THURSDAY, JANUARY 22

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. Paper by Professor J. Husband, M.ENG., M.INST.,C.E. **6.30 p.m.**

FRIDAY, JANUARY 23

WEST YORKSHIRE SOCIETY OF ARCHITECTS. At the Technical College, Cardiff. First of six public lectures on "Egyptian and Western Asiatic Architecture." By Norman Culley, F.R.I.B.A. **7.45 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Western Counties Branch. At the Merchant Venturers' Technical College, Unity Street, Bristol. "Fatigue of Metals." By M. Morgan, B.SC. 7.30 p.m. Lancashire and Cheshire Branch. At the College of Technology, Manchester. "Structural Engineering in Modern Gasworks." By A. E. Pierce, M.I.STRUCT.E. 7 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Reinforced Construction at Bournemouth Gas Works." By H. M. Hale, M.I.STRUCT.E. 6.30 p.m. **6.30 p.m.**

BRISTOL SOCIETY OF ARCHITECTS. At the Berkeley Café, Queens Road, Clifton. "Architecture in Modern Germany." By F. R. Yerbury, HON.A.R.I.B.A. **5.30 p.m.**

SATURDAY, JANUARY 24

Sunrise, 7.50 a.m. Sunset, 4.36 p.m.

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. Fifth Annual Dinner to be held at Birmingham.

MONDAY, JANUARY 26

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "The Place of the Designer in Commerce." By R. P. Gossop. **8 p.m.**

TUESDAY, JANUARY 27

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "Norman Architecture." By S. E. Whitaker, F.A.S.I. **7 p.m.**

TRADE NOTES

A new building is to be added to the already extensive works of Messrs. G. A. Harvey & Co. (London), Ltd., which cover twenty-seven acres at Woolwich Road, London. The new building is to be constructed to meet the requirements of their steel plate construction and steel furniture and equipment departments. Several hundred concrete piles have already been driven to ensure a foundation sufficiently firm to bear the heavy machinery that is to be installed. It is only two years since a large extension was made to the Harvey works, but the rapid development of the two departments has necessitated the erection of the new building. The firm are well known as sheet metal and steel plate workers, and as makers of all kinds of industrial plant, such as pressure vessels (up to 350 lb. per sq. in.), vacuum pans, food processing retorts, tar stills, creosoting plant, storage tanks of the largest size up to 116 ft. diameter, and chemical and by-product plant, some of the plant which is manufactured being their own patents.

*

The South African Steel and Iron Industrial Corporation, Ltd., have announced the accepted tenders for the construction of their new works at Pretoria; the actual contracts will be signed in South Africa in about five weeks' time. Messrs. Dorman, Long & Co., Ltd., of Middlesbrough and London, who tendered jointly with Messrs. Demag, will receive the order for the construction of the steel melting shop and rolling mills. Messrs. Dorman, Long & Co., Ltd., will supply and erect all the fabricated steelwork required in these departments, the total order involving some 15,000 tons of steel, which will be manufactured in the company's Middlesbrough works.

*

However good a product may be or favourable its market, the progress of any organization depends very largely upon the goodwill and co-operation of its employees. This is appreciated by Electrolux Limited, makers of cleaning equipment, refrigerators, water softeners, and floor polishers. Their dance, held at the Knightsbridge Hotel, was more than a social function; it was a get-together of leaders, executives, and members of all sections and departments of the business, that they might meet again, and know each other better, in a genial and relaxing atmosphere, and foster what is known in the company as "the Electrolux Spirit."

The directors of Westminster Bank, Ltd., announce with much regret that their chairman, Mr. R. Hugh Tennant, has intimated his intention to retire on December 31. Mr. Tennant will retain his seat on the board, so that his great knowledge of financial and industrial affairs may remain at the service of the Bank. The Hon. Rupert E. Beckett will succeed Mr. Tennant as chairman on January 1, and Sir Malcolm Hogg will become a joint deputy chairman on that date.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office, by our own patent expert. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated, readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

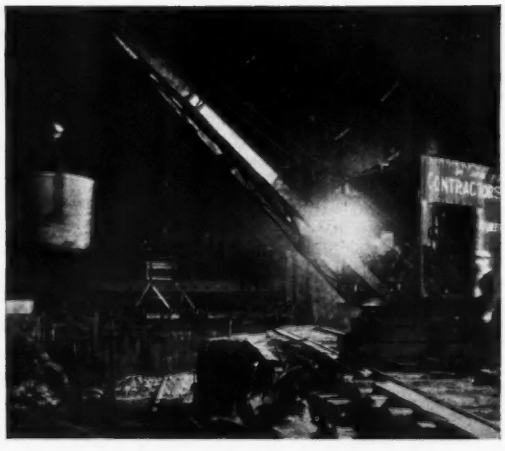
35774. Airey, Sir E. Concrete construction for floors, etc. November 28.

35281. Barton and Shear, B. Stud and slab building structures. November 24.

35759. Deutsche Stahl-Lamellenges, and Hunnebeck, E. Lattice-work structures. November 27.

35368. Haas, L., and Sedolmayer, W. Building construction. November 24.

35564. Kopelowicz. Production of building material. November 26.



The work on the rebuilding of Hays Wharf, Tooley Street, S.E., by Messrs. Holland & Hannen and Cubitts, is proceeding rapidly, and night-work is made possible by the use of Philips floodlights. This photograph is one of several taken under the artificial light and is typical of the lighting results achieved in various positions and sections of the work. On this particular job six of Philips type F.L.A. floodlights with 1,000 watt gas-filled lamps were used.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :

Cropthorne Court, Maida Vale (pages 899–901). General contractor, John Knox and Dyke, Ltd. Sub-contractors : Diespeker & Co., Ltd., fire-resisting floors; Crittall Manufacturing Co., Ltd., steel casements; Ames and Finnis, facing bricks and Italian Lombardic roofing tiles; Express Lift Co., Ltd., lifts; Leeds Fireclay Co., Ltd., Lefco faience and sanitary fittings; Walter Cowen, Ltd., plumbing and draining; Comyn, Ching & Co., Ltd., oil-heating apparatus and hot-water installation; Henry Green, Ltd., fire-escape staircases; Frigidaire, Ltd., refrigerators; Tredegars, Ltd., electrical work; Val de Travers Asphalte Co., Ltd., asphalting.

C.W.S. Bank and Administrative Offices, Corporation Street, Manchester (pages 902–906). General contractor, Building Department, Co-operative Wholesale Society, Ltd. The work was carried out under the management of Mr. Townley and the engineering work under the supervision of Mr. R. L. Gass, chief engineer to the Society. The firm were also responsible for the demolition, excavation, foundations, reinforced concrete, fireproof construction, electric wiring, joinery, plumbing, stonework, furniture, office fittings, cloakroom fittings, lifts and water supply. Sub-contractors : Limmer and Trinidad Asphalte Co., Ltd., dampcourses and asphalt; Higgins and Sons, common bricks and Salamander partition blocks; Shaws Glazed Brick Co., glazed bricks; Stancliffe Estates, Ltd., stone; Empire Stone Co., Ltd., artificial stone; Banister, Walton & Co., structural steel; C. W. Williams & Co., tiles; Beaumonts (Manchester), Ltd., slates; Pilkington Brothers, glass; R. W. Brooke & Co., wood-block flooring; Richard Crittall & Co., panel system of heating; Royles, calorifier; The General Electric Co., Ltd., electric light fixtures and electric heating; J. Lightfoot & Co., electric tubular heating; Davidson and Sons, ventilation; W. R. Pickup & Co., Ltd., sanitary fittings; Tonks & Co., Ltd., locks; Jas. Gartland and Sons, Ltd., door and window furniture, and floor springs; Henry Hope and Sons, casements; Gent & Co., bells and clocks; Reliance Automatic Telephone Co., telephones; J. Eastham and Son, plaster; J. Tanner and Son, decorative plaster; Bromsgrove Guild, Ltd., and Birmingham Guild, Ltd., metalwork; J. and H. Patteson, Ltd., marble; C. W. Williams & Co., tiling.

Eastbourne College Masters' House (page 911). General contractors, J. W. Woolnough, Ltd. Sub-contractors : Ames and Finnis, roof tiling; G. Matthews, Ltd., fireplaces; Empire Stone Co., Ltd., balconies; W. Bainbridge Reynolds, Ltd., metal railings; John Bolding and Sons, Ltd., sanitary equipment; Jacob, White & Co., Ltd., electric light and power; J. T. Meredith & Co., Ltd., hot water; Crittall Manufacturing Co., Ltd., metal windows.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

The BERMONDSEY Council has decided to proceed under the slum clearance scheme with the work of demolishing houses in six areas.

The BETHNAL GREEN Borough Council is about to erect seventy-eight blocks of tenements in Hackney Road at a cost of over £65,000. The architect is Mr. E. C. P. Monson, F.R.I.B.A., F.S.I.

Plans passed by the BROMLEY Town Council: Nine houses, Lower Gravel Road, for Messrs. W. E. and S. Rumph; two houses, King's Avenue, and bridge over stream, Ravensbourne, for Mr. A. Frampton; two houses, Sunningdale Road, for Mr. A. Johnson; house, Southborough Road, for Messrs. Easter and Webb; two flats, Talbot Road, for Mr. J. L. Woodhams; house, 144 Murray Avenue, for Mr. C. S. Theobald; pair of semi-detached houses, The Grove; six pairs of semi-detached houses and garages, The Avenue; seven detached and one pair of semi-detached houses, Coney Hill Estate.

Mr. Ernest Bates is the architect of showrooms to be erected at 380-2 London Road, CROYDON.

The HENDON R.D.C. has passed plans for sixty-three houses to be built in Edgware, Little Stanmore and Great Stanmore.

The housing problem of the L.C.C. for the ensuing five years is expected to cost over £21,000,000. It provides for 34,670 houses and flats, and the clearance of ninety-eight acres of slum property, involving the re-housing of 30,500 people. Ten sites have been acquired in central areas for the erection of 2,792 dwellings in blocks. On the Becontree and St. Helier estates a further 13,978 houses are projected.

The plans of a factory to be erected at NEASDEN for the Bosch Magneto Co. have been prepared by Messrs. Hobden and Porri, architects.

A block of property adjoining the Law Street section of the Tabard Street area, SOUTHWARK, is to be acquired by the L.C.C., for rehousing purposes, at a cost of £32,000.

At a recent meeting of the WOOLWICH Borough Council the Housing Committee recommended that, subject to the approval of the Ministry of Health and to the sanction of the L.C.C. to the necessary loan, the Council should acquire from the Commissioners of Crown Lands a site on the south side of Eltham Road and Eltham Hill for a sum of £90,000, for housing purposes.

SOUTHERN COUNTIES

It is proposed to build a new Theatre Royal in Westover Road, BOURNEMOUTH. The new building will succeed the present Theatre Royal in Albert Road.

Plans passed by the EASTBOURNE Town Council: Three pairs of semi-detached houses, Moy Avenue; three detached houses with garages, Baldwin Avenue; detached house, junction of Longland Road and Broomfield Street; pair of semi-detached houses, Longland Road; detached house, Prideaux Road; two detached houses and pair of semi-detached houses, Dillingburgh Road. In addition, numerous alterations and additions to private houses, hotels and shops, including a number of garages, were passed.

Plans passed by the FARNHAM U.D.C.: House, Boundstone, for Mr. J. Mills; houses, Broomleaf, for Mr. H. Knott; house, Longley Road, for Mr. W. P. Gill; pair of cottages, Little Compton, for Mr. A. J. Stedman; bungalow, Shortheath, for Mr. A. J. Lehman.

Plans have been prepared for a new cinema to be erected on a site in Ockford Road, GODALMING, for Messrs. County Cinemas, Ltd. The architect is Mr. Henry G. Baker.

The REIGATE Town Council has received sanction from the Ministry of Health for the borrowing of an additional sum of £600 in connection with the provision of thirty-six parlour houses to be erected in Linnell Road on the Redstone housing site.

The TUNBRIDGE WELLS Town Council has decided to ignore the result of the unofficial poll of the town and to proceed with the scheme for the provision of new municipal buildings, etc., at an estimated cost of £171,964.

The TUNBRIDGE WELLS Town Council has resolved to make application to the Ministry of Health for sanction to borrow £2,121 for the purchase of the Rusthall Grange Farm, comprising about 14¾ acres of land, for the erection of houses.

SOUTH-WESTERN COUNTIES

The Housing Committee of BRISTOL City Council has prepared a scheme for the erection of 7,500 houses during the next five years at a cost of £3,500,000.

The CREWKERNE U.D.C. are in negotiation with the Ministry of Health for the purchase of sites at Severalls, for building purposes.

The HIGHBRIDGE U.D.C. has decided to erect a number of shops on their Market Street property.

The NEWENT R.D.C. propose to erect six pairs of cottages on land adjoining Mill Lane, Stardens.

EASTERN COUNTIES

The AMPTHILL R.D.C. has received sanction from the Ministry of Health for the erection of houses at the following places: Clophill, four; Flitton, four; Harlington, four; Haynes, two; Houghton Conquest, four; Lidlington, four; Shillington, four; Toddington, four; Apsley Guise, four; Flitwick, four; and Marston Moretaine, six.

The CHELMSFORD R.D.C. has approved the erection of houses as follow: Writtle, thirty houses; Great Baddow, twelve; Little Baddow, Ford End, Sandon and Danbury, four each; Boreham and Broomfield, twelve each; Rettendon and Roxwell, eight each; Stock, Little Waltham, Woodham Ferris, Pleshey, Highwood, Galleywood and West Hanningfield, six each.

MIDLAND COUNTIES

The COALVILLE U.D.C., at a recent meeting approved the erection of new municipal buildings subject to the sanction of the Ministry of Health.

Messrs. E. Ward (Wellingborough), Ltd., propose to erect motor showroom premises, etc., at Thorngate Street and Montague Street, KETTERING. Plans have been prepared by Messrs. Talbot Brown and Fisher, FF.R.I.B.A.

The Ministry of Health has sanctioned the acquisition by the LEOMINSTER Town Council of about seven acres of land between Gateway Lane and Ryelands Road, for housing purposes.

The OXFORD T.C. has instructed the city engineer to prepare plans and specifications, and advertise for tenders for the construction of 144 houses on the Cutteslowe estate.

At a meeting of the WORKSOP R.D.C. plans for the erection of a mansion in Welbeck Park for the Marquis of Titchfield, M.P., were approved

NORTHERN COUNTIES

The ALFRETON U.D.C. has approved a scheme for the erection of three hundred and fifty houses during the next five years, under the Slum Clearance Act.

The BILLINGHAM (DURHAM) U.D.C. has made application to the Ministry of Health for sanction to build a further hundred houses in Cowpen Lane.

An amendment to a Housing Committee recommendation that 1,000 houses be built by the GATESHEAD Town Council, restricting the scheme to 500 houses, was carried, at a recent meeting of the Council.

Plans have been deposited with the LEEDS Corporation for the new super-cinema to be erected in the Headrow for Messrs. Shaftesbury Trust, Ltd. The architect is Mr. Frank T. Verity, F.R.I.B.A.

Messrs. Percy L. Browne and Sons, architects, are preparing plans for a new block of office premises, etc., on a site in Northumberland Street, NEWCASTLE.

Plans have been approved for extensive alterations at the Royal Picture House, ROTHERHAM.

The Sutton Trust contemplate the erection of a number of tenement houses in the Seedley Road district of SALFORD. The proposed sites are at present occupied by a few old residences. Thirty-six artisan dwellings as temporary alternative accommodation for the occupants of the residences are to be erected in Gerald Road, Pendleton.

A large slum clearance scheme is to be recommended to the SUNDERLAND Borough Council by the Health Committee. The committee's recommendation is that ten areas of slum property in various parts of the borough be submitted to the Ministry of Health for designation as "clearance areas." In addition to this step the committee propose to embark on a programme of building 2,000 houses.

The WORTLEY R.D.C. has decided to erect forty-two houses at High Green and Chapeltown; thirty-six houses at Ecclesfield and Thorpe Hesley; ten houses at Grenoside; fourteen houses at Loxley and Wisewood; forty houses at Oughtbridge; and twenty houses at Stannington.

SCOTLAND

Schemes embracing an additional 136 houses have been decided upon by the Future Development of Housing Committee of the DUNDEE Town Council.

Plans for a new picture house in DUNFERMLINE were passed at a sitting of the Dean of Guild Court. It will provide seating accommodation for 1,875 persons.

Among the linings granted at a meeting of the Dean of Guild Court, GLASGOW, were the following: Houses and shops, Rumford Street, South-East; houses, Friarscourt Avenue, and Baldwin Avenue, Knightswood; houses, Cloberhill Road, Knightswood.

The INVERNESS Town Council has adopted a scheme for the erection of fifty-two houses.

The Parliamentary plans for the new steel bridge at KINCARDINE have now been deposited. It has been designed by Sir Alexander Gibb and Partners. The total cost is approximately £300,000.

The KINGHORN Town Council propose to build a hall capable of seating 600 persons on the site at Braehead lately occupied by a picture house, now demolished.

At a meeting of MOTHERWELL and WISHAW Town Council, it was resolved that during the next three years 600 houses should be built by the Council in the Motherwell and Wishaw area, at an estimated cost of £200,000.

IRELAND

The ATLEY U.D.C. has decided to take over the Woodstock Street site for the erection of twenty-three houses. Mr. Heeney, architect, who has almost completed the Carlow Road scheme of thirty-six houses, has been asked to make a plan of the new houses. The full cost of the two schemes will, it is estimated, amount to about £17,000.

The CORK Corporation has approved of a scheme for the erection of 220 houses in Bandon Road. It has also been decided that two acres of land at Turner's Cross be sold to the Irish Sailors' and Soldiers' Land Trust for housing purposes; that £15,000 be advanced to St. Joseph's Utility Building Society for erecting houses at Ashburton; and that steps be taken to acquire land for housing schemes in the north-western area and at Bandon Road. It was agreed that inquiries be made as to the possibility of raising the necessary funds for the erection of a city hall (£120,000) and a school of commerce (£60,000).

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_3	Addlestone	S. Counties	1 5½	1 1
A	Adlington ..	N.W. Counties	*1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh ..	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_3	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_3	Atherstone	Mid. Counties	1 5½	1 1
B_3	Aylesbury ..	S. Counties	1 3½	11½
B_3	BANBURY	S. Counties	1 4	1 0 *
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_3	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_3	Basingstoke	S.W. Counties	1 4	1 0
A_3	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_3	Bedford ..	E. Counties	1 5½	1 1
A_3	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_3	Bewdley ..	Mid. Counties	1 6	1 1½
B_3	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn ..	N.W.Counties	1 7	1 2½
A	Blackpool ..	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_3	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_3	Boston ..	Mid. Counties	1 5½	1 1
A_3	Bournemouth	S. Counties	1 5½	1 1
B_3	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_3	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_3	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_3	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_3	Brixham ..	S.W. Counties	1 3½	11½
A_3	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_3	CAMBRIDGE	E. Counties	1 5½	1 1
B_3	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon ..	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford ..	Yorkshire	1 7	1 2½
B_1	Chatham ..	S. Counties	1 4½	1 0½
B_1	Chelmsford	E. Counties	1 4½	1 0½
A_3	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_3	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_3	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank ..	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_3	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_3	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_3	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_3	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_3	Deal ..	S. Counties	1 4	1 0
A_3	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury ..	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster ..	Yorkshire	1 7	1 2½
B_3	Dorchester ..	S.W. Counties	1 3½	11½
A_3	Driffield ..	Yorks	1 5½	1 1
A_3	Droitwich ..	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_3	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_3	Folkestone	S. Counties	1 4	1 0
A	Frodsham ..	N.W. Counties	1 7	1 2½
B_3	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester ..	S.W. Counties	1 6	1 1½
A_3	Goole ..	Yorkshire	1 6	1 1½
A_3	Gosport ..	S. Counties	1 5½	1 1
A_3	Grantham ..	Mid. Counties	1 5½	1 1
A_1	Gravesend ..	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate ..	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_3	Hastings ..	S. Counties	1 4	1 0
A_3	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_3	Ipswich ..	E. Counties	1 5½	1 1
B_3	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_3	Lewes ..	S. Counties	1 3½	11½
A_3	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_3	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12-miles radius)		1 8½	1 3½
	Do. (12–15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone ..	S. Counties	1 4½	1 0½
A_3	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_3	Margate ..	S. Counties	1 4	1 0
A_3	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_3	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle ..	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_3	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_3	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_3	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_3	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_3	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_3	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_3	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_3	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_3	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_3	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_3	South'pton ..	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on-Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_3	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_3	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_3	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_3	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_3	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* NAVVY, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 10 0
Pit gravel, per yd.	0 15 0
Pit sand, per yd.	0 12 6
Washed sand, per yd.	0 13 0
Screened ballast or gravel, add 10 per cent. per yd.	
Clinker, breeze, etc., prices according to locality.	
Portland cement, per ton	£2 8 0
Lias lime, per ton	2 0 0
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.	

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0 15 0
3-ton motor lorry	3	15	0	*Steam roller*	4 5 0
Steam lorry, 5-ton	4	0	0	*Water cart*	1 5 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0

Exceeding 6 ft., but under 12 ft., add 30 per cent.

In stiff clay, add 30 per cent.

In underpinning, add 100 per cent.

In rock, including blasting, add 225 per cent.

If basketed out, add 80 per cent. to 150 per cent.

Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd. £0 1 6

SPREAD and level, including wheeling, per yd. 0 1 6

FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6

TRIMMING earth to slopes, per yd. sup. 0 0 6

HACKING up old grano. or similar paving, per yd. sup. . . . 0 1 3

PLANKING to excavations, per ft. sup. 0 0 5

DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.

If left in, add to above prices, per ft. cube 0 2 0

HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1

DO. 6 in. thick, per yd. sup. . . 0 2 10

PUDDLING, per yd. cube . . . 1 10 0

CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6

DO. 6-2-1, per yd. cube . . . 1 12 6

DO. in upper floors, add 15 per cent.

DO. in reinforced-concrete work, add 20 per cent.

DO. in underpinning, add 60 per cent.

LIAS-LIME CONCRETE, per yd. cube . £1 14 0

BREEZE CONCRETE, per yd. cube . 1 7 0

DO. in lintels, etc., per ft. cube . 0 1 6

CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9

FINE concrete benching to bottom of manholes, per ft. cube . . . 0 3 0

FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1s. 3½d. *per hour;* TIMBERMAN, 1s. 5d. *per hour;* BRICKLAYER, 1s. 8½d. *per hour;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0 0 10
DO. *6 in., per ft.*	0 1 3
DO. *9 in., per ft.*	0 2 3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 5 6
DO. *6 in., per yd.*	0 8 0
Portland cement and sand, see "Excavator" above.	
Leadwool, per cwt.	£2 0 0
Gaskin, per lb.	0 0 4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3

DO. 6 in., per ft. 0 5 0

DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3

DO. 6 in., per ft. 0 10 3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.

Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

London stocks, per M.	£1 5 6
Flettons, per M.	2 12 6
Midhurst white facing bricks, per M.	5 0 0
Multi-coloured facings, per M.	7 7 9
Best red facings, per M.	7 7 9
Rubbers, 9¼ in., per M.	12 0 6
Staffordshire blue, per M.	9 5 0
Firebricks, 2½ in., per M.	9 5 0
Glazed salt, white, and ivory stretchers, per M.	21 10 0
DO. *headers, per M.*	20 10 0
Colours, extra, per M.	5 10 0
Seconds, less, per M.	1 0 0
Cement and sand, see "Excavator" above.	
Lime, grey stone, per ton	£2 11 6
Mixed lime mortar, per yd.	1 6 0
Dampcourse, in rolls of 4½ in., per roll	0 2 6
DO. *9 in., per roll*	0 4 9
DO. *14 in., per roll*	0 7 6
DO. *18 in., per roll*	0 9 6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30 0 0
DO. in cement do., per rod	32 10 0

DO. in stocks, add 25 per cent. per rod.

DO. in blues, add 100 per cent. per rod.

DO. circular on plan, add 12½ per cent. per rod.

DO. in backing to masonry, add 12½ per cent. per rod.

DO. in raising on old walls, etc., add 12½ per cent. per rod.

DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0 1 0
BEDDING plates in cement mortar, per ft. run	0 0 3
BEDDING window or door frames, per ft. run	0 0 3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0 0 2
CUTTING do. in old walls in cement, per ft. run	0 0 4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0 0 7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0 3 6
DO. 14 ft. by 9 in. do., per ft. run	0 6 0
FLAUNCHING chimney pots, each	0 2 0
CUTTING and pinning ends of timbers, etc., in cement	0 1 0
FACINGS, fair, per ft. sup. extra	0 0 3
DO. picked stocks, per ft. sup. extra	0 0 7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0 4 9
DO. in salt white or ivory glazed, per ft. sup. extra	0 5 6
TUCK pointing, per ft. sup. extra	0 0 10
WEATHER pointing, do. do.	0 0 3
TILE creasing with cement fillet each side, per ft. run	0 0 6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0 5 0
DO. 1½ in., per yd. sup.	0 6 0
DO. 2 in., per yd. sup.	0 7 0
If coloured with red oxide, per yd. sup.	0 1 0
If finished with carborundum, per yd. sup.	0 0 6
If in small quantities, in finishing to steps, etc., per ft. sup.	0 1 4
Jointing new grano. paving to old, per ft. run	0 0 4
Extra for dishing grano. or cement paving around gullies, each	0 1 6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0 0 7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0 8 0
DO. vertical, per yd. sup.	0 11 0
SLATE DAMP COURSE, per ft. sup.	0 0 10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0 8 6
DO. SKIRTING, 6 in.	0 0 11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0 5 3
DO. DO. 3 in.	0 6 6
BREEZE fixing bricks, extra for each	0 0 3

MASON

MASON, 1s. 8½d. *per hour;* DO. *fixer,* 1s. 9½d. *per hour;* LABOURER, 1s. 3½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour.*

Portland Stone:	
Whitbed, per ft. cube	£0 4 6
Basebed, per ft. cube	0 4 9
Bath stone, per ft. cube	0 3 0
Usual trade extras for large blocks.	
York paving, av. 2½ in., per yd. super	0 11 0
York templates, sawn, per ft. cube	0 7 6
Slate shelves, rubbed, 1 in., per ft. sup.	0 2 6
Cement and sand, see "Excavator," etc., above.	

HOISTING and setting stone, per ft. cube	£0 2 2

DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0 2 8
DO. circular, per ft. sup.	0 4 0
SUNK FACE, per ft. sup.	0 3 9
DO. circular, per ft. sup.	0 4 10
JOINTS, arch, per ft. sup.	0 2 6
DO. sunk, per ft. sup.	0 2 7
DO. DO. circular, per ft. sup.	0 4 6
CIRCULAR-CIRCULAR work, per ft. sup.	1 2 0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0 1 1
DO. circular, do., per ft. run	0 1 4
HALF SAWING, per ft. sup.	0 1 0

Add to the foregoing prices, if in York stone, 35 per cent.

DO. Mansfield, 12½ per cent.

Deduct for Bath, 33⅓ per cent.

DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0 0 6
RUBBED round nosing to do., per ft. lin.	£0 0 6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1 7 6
YORK SILLS, W. & T., ft. cub. fixed	1 10 0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0 1 3
DO. 2½ in. thick, per ft. sup.	0 1 6

SLATER AND TILER

SLATER 1s. 8½d. *per hour;* TILER, 1s. 8½d. *per hour;* SCAFFOLDER, 1s. 4½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:	
Portmadoc Ladies	£14 0 0
Countess	23 0 0
Duchess	32 10 0

	Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0	
20 in. × 10 in.	31 4 3	33 0 6	
16 in. × 10 in.	20 18 0	22 4 9	
14 in. × 8 in.	12 1 0	12 16 3	

Green Randoms, per ton	8 3 9
Grey-green do., per ton	7 3 9
Green peggies, 12 in. to 8 in. long, per ton	5 13 9
In 4-ton truck loads, delivered Nine Elms station.	
Clips, lead, per lb.	£0 0 6
Clips, copper, per lb.	0 2 0
Nails, compo, per cwt.	1 6 0
Nails, copper, per lb.	0 2 2
Cement and sand, see "Excavator," etc., above.	
Hand-made tiles, per M.	£5 18 0
Machine-made tiles, per M.	5 8 0
Westmorland slates, large, per ton	9 0 0
DO. *Peggies, per ton*	7 5 0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4 0 0
Countess, per square	4 5 0
Duchess, per square	4 10 0
WESTMORLAND, in diminishing courses, per square	6 5 0
CORNISH DO., per square	6 3 0
Add, if vertical, per square approx.	0 13 0
Add, if with copper nails, per square approx.	0 2 6
Double course at eaves, per ft. approx.	0 1 0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms	6 7 0	
Grey-green do.	5 9 0	
Green peggies, 12 in. to 8 in. long	4 13 6	

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3 17 6
DO., machine-made do., per square	3 7 6

Vertical Tiling, including pointing, add 18s. 0d. per square.

FIXING lead soakers, per dozen	£0 0 10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0 10 0
LABOUR only in laying slates, but including nails, per square	1 0 0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour;* JOINER, 1s. 8½d. *per hour;* LABOURER, 1s. 3½d. *per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):	
7 × 3, per std.	£22 0 0
11 × 4, per std.	30 0 0
Memel or Equal. Slightly less than foregoing.	
Flooring, P.E., 1 in., per sq.	£1 4 6
DO., *T. and G., 1 in., per sq.*	1 4 6
Planed boards, 1 in. × 11 in., per std.	30 0 0
Wainscot oak, per ft. sup. of 1 in.	0 1 6
Mahogany, Honduras, per ft. sup. of 1 in.	0 1 4
DO., *Cuba, per ft. sup. of 1 in.*	0 2 6
DO., *African, per ft. sup.*	0 1 3
Teak, per ft. sup. of 1 in.	0 1 2
DO., *ft. cube*	0 14 0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0 4 6
DO. framed in floors, roofs, etc., per ft. cube	0 4 6
DO. framed in trusses, etc., including ironwork, per ft. cube	0 8 6
PITCH PINE, add 33⅓ per cent.	
FIXING only boarding in floors, roofs, etc., per sq.	0 13 6
SARKING FELT laid, 1-ply, per yd.	0 1 6
DO., 3-ply, per yd.	0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq.	2 0 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0 0 4½
DO. 9 in. wide and over, per ft. sup.	0 1 2

[continued overleaf

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in thick, per yd. sup.	0	10	0
DO. 1½ in. thick, per yd. sup.	0	12	0
Maple 1½ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¾ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour ;* MATE, *do.,* 1*s.* 3½*d. per hour ;* ERECTOR, 1*s.* 8½*d. per hour ;* FITTER, 1*s.* 8½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour ;* MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	1	8
DO. ¾ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1¼ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *½ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span 1*s* 6*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.			

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* FRENCH POLISHER, 1*s.* 8½*d. per hour ;* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall..	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

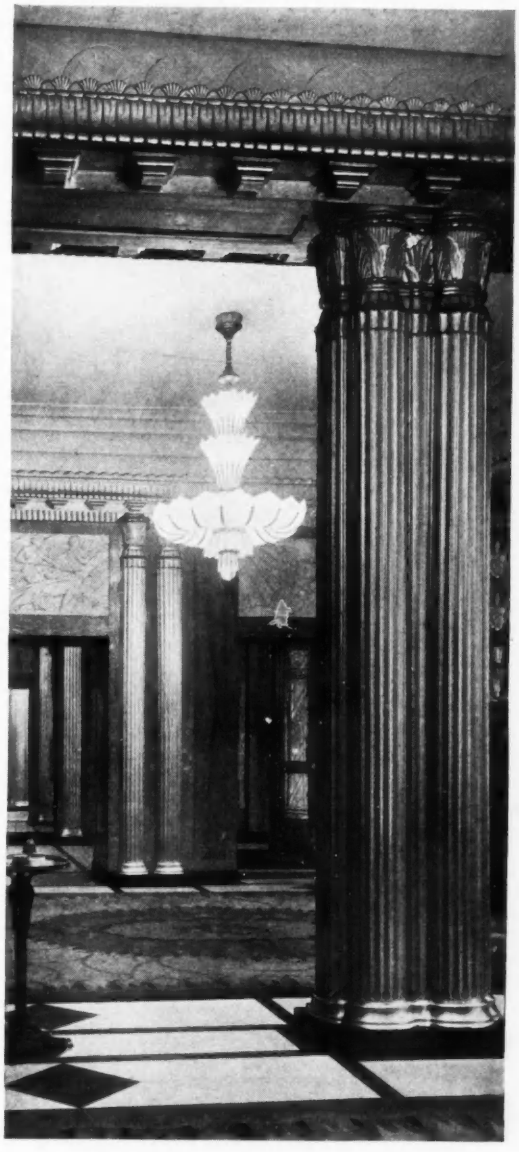
SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½ —		1 0½	10 —	
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



CASINGS TO STANCHIONS
AT THE RESTAURANT FRASCATI, OXFORD STREET, LONDON, W.
Designed by COLLCUTT AND HAMP

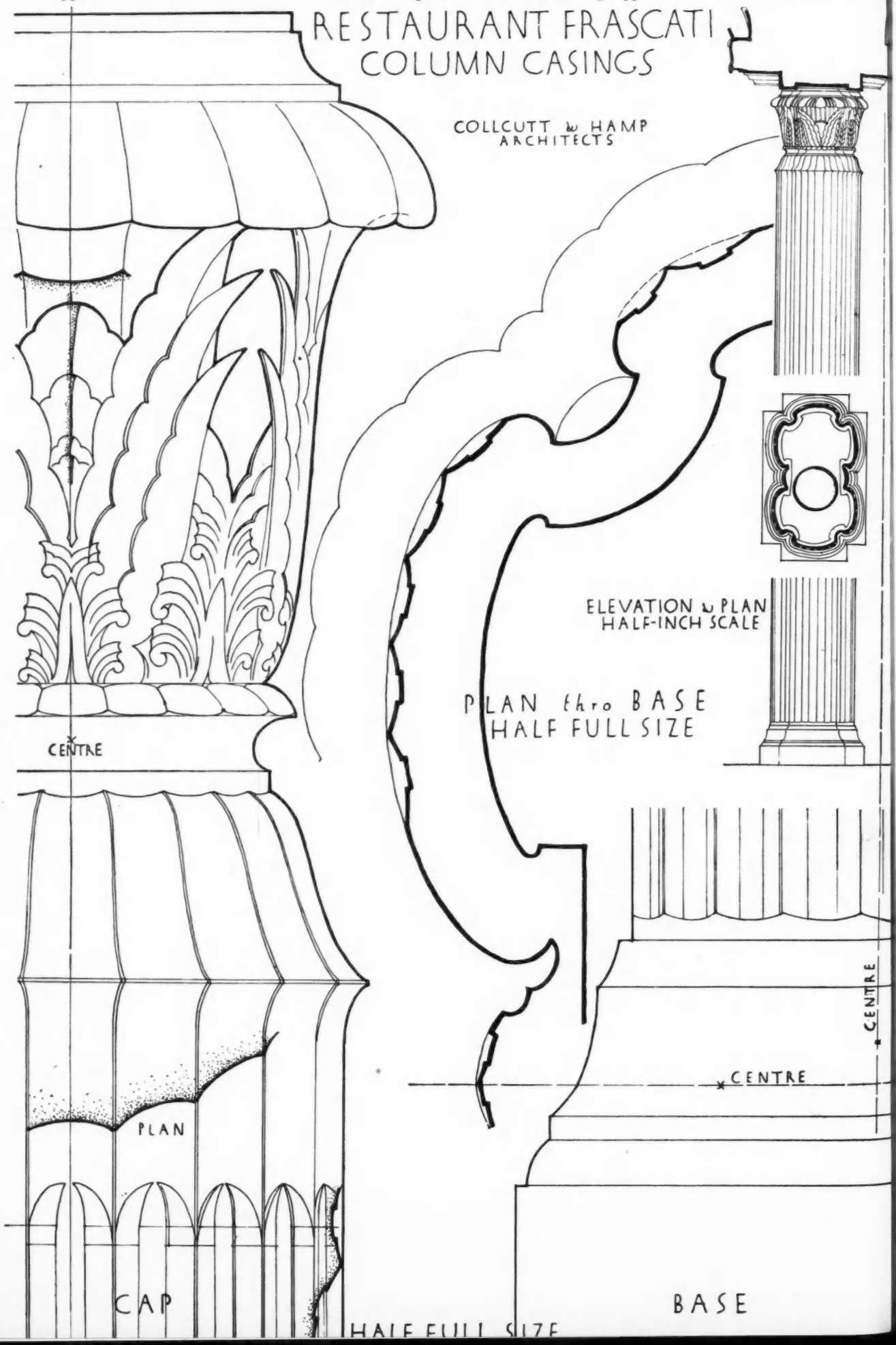
IN putting Frascati's house in order, the architects have not only succeeded in giving it a fresher and more comely face to the world, but have achieved a notable success in their treatment of the interior. The decoration is gay without being frivolous, belongs to no "style" and to no "period" beyond the style of a better-class restaurant in a big city, and the period of the twentieth century.

Quite one of the most interesting features in this extensive reconditioning is the treatment of casings to the existing stanchions, illustrated by the photograph above and by half-inch and half full-size details overleaf. Irregularity in the spacing of the existing supports has been artfully overcome by building out the casings on false centres, as it were, and the resultant grouping into a cluster of these finely-executed columns achieves a result at once rich and dramatic. The columns themselves are of hardwood, finished in silver leaf and gold lacquer, while the caps, out of reach of any damage, are of fibrous plaster, finished in the same manner.

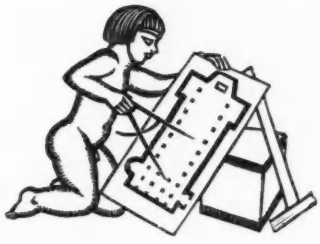
The drawings overleaf may be read with architects' ordinary scales (½"; and 6"=1 foot).

RESTAURANT FRASCATI
COLUMN CASINGS

COLLCUTT & HAMP
ARCHITECTS



THE ARCHITECTS' JOURNAL



WEDNESDAY, DECEMBER 24, 1930

"ROMANTIC" ARCHITECTURE

THE word *Romantic* seems to have been first used with a precise meaning about the middle of the seventeenth century. The introduction of a new word in the language indicates a new object, a new thought, or a new reaction, and the word *Romantic* seems to have been introduced to express an indirect vision which was something hitherto unknown; the vision of Nature or of art through the medium of another art, usually through the medium of literature.

It thus stood for something a little strange, something seen not quite clearly, but tinged with other values, an evoking of the past for the better enjoyment of the present, all of which things indicate an advanced degree of self-consciousness.

And little by little there occurred in the development of thought an almost definite bifurcation, the paths taking on the names of *Romantic* and *Classic*. But there was always this difference between them : that whereas the one was indirect, the seeing of something through the medium of something else, the other was clearcut and direct. This fact is often overlooked, especially by partisan historians of the battle, who point out that Gothic architecture is more indigenous to this country than Classic; which is in itself a debatable hypothesis, for what after all do we mean, in common parlance, by indigenous? Is the potato indigenous, is our faith indigenous, is the word indigenous indigenous? However, what is even less debatable is the fact that the Gothic revival was essentially a manifestation of the Romantic movement, a movement which saw one set of things in terms of another—a subjective movement, an imaginative movement, a literary movement.

Germany was, perhaps, the scene of the first real conflict. Indeed, as it has been put, "Goethe took upon Schiller and himself the responsibility of having added to the world's woes this famous subject of debate." The Battle of the Styles was thus nothing more than a counterpart in architecture of a vast warfare that was raging elsewhere. And it was a warfare between conflicting ideals, between conflicting temperaments.

How are these differences to be epitomized? Is it reason against imagination, and the objective against the subjective; is it perception against introspection, the finite against the infinite; is it order against disorder, the planned against the fortuitous, form against growth; is it the controlled against the uncontrolled; is it the general against the particular, the obvious against the mysterious; is it the spontaneous against the self-conscious? Actually it is surely all or any of these things, and although often enough these opposing qualities may be found side by side in the same work of art, two schools of thought have grown up, the opposition between which is based upon quite fundamental differences of outlook.

During the period when the so-called Battle of the Styles raged at its acutest the issues were fairly well defined. As knowledge of the past grew they tended to become more obscure, but even today there is a real cleavage between those in whom the formal instinct is highly developed, and those whose predilections are for the obscure and the strange. Thus the conflict, though ceasing to lie between the Gothic and Classic styles of architecture, persists nevertheless.

Of the three qualities, so important in architecture, of form, texture, and colour, that of form is surely the most important, and the appreciation of it requires a finer, a more sensitive, a more cultured mind than the appreciation of either colour or texture. Those, therefore, who set a high value upon form in architecture are exercising a rarer discrimination than those who undervalue it and favour other qualities; but, nevertheless, this favouritism is based not so much upon any error of judgment as upon a difference of temperament, a difference which would be found to affect the individual's entire outlook. Although it is unlikely that there will again occur revivals comparable with the Gothic revival, this difference of outlook will remain and will always manifest itself in architecture.



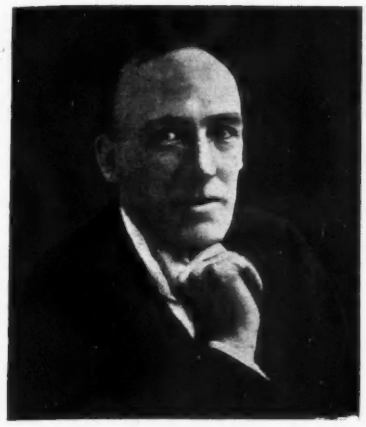
THE NEW SOUTH AFRICA HOUSE,
TRAFALGAR SQUARE, S.W.

This perspective drawing of the design produced by Sir Herbert Baker shows the aspect of the proposed building in relation to the Church of St. Martin-in-the-Fields.

Already hoardings are going up in front of the buildings that have hitherto occupied the site—the first step in a scheme of reconstruction which will change the face of what is probably the most widely known of all London views. The new South Africa House forms the most important part of the plan for rebuilding the entire island block bounded by Trafalgar Square, Duncannon Street, and the Strand, which, incidentally, is to benefit by widening. In order to secure unity Sir Herbert Baker has supervised the façades of the remainder of the block, ownership of which is shared between three parties.

It is expected that South Africa House will cost some £300,000 and will be ready for occupation in about two years' time. It will be remembered that the South African feeling was in favour of a building designed in accordance with typical Cape Dutch architecture, but it was realized that it would have been ill suited to urban purposes. Sir Herbert, in following the traditions of the Corinthian Order, seen in the National Gallery, not only for the Trafalgar Square front but for the columns of a circular colonnade at the eastern end of the site, has secured dignity and harmony.

The High Commissioner's office will open direct from the central portico ; and an exhibition hall and cinema hall are important features of the scheme.



Professor Stanley Davenport Adshead, M.A., F.R.I.B.A., M.T.P.I., whose lecture on the industrial development of South Essex is reported on page 950 of this issue. A noted town planner, he is joint editor of The Town Planning Review, *and author of several regional reports. He was responsible for a scheme for the proposed Charing Cross Bridge.*

NEWS & TOPICS

HOUSING ! HOUSING ! HOUSING !

NO one can afford to ignore a pronouncement on the housing situation emanating from Sir Tudor Walters. One does not need to be reminded from what firm basis of accomplished fact Sir Tudor speaks, and he is plainly both unimpressed with the possibilities of the 1930 Housing Act and its administration by local authorities. He sees grave unemployment among building operatives, and asks the Government for some definite indication of housing policy calculated to absorb this labour without the rise in prices associated with the ill-fated Addison schemes.

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Housing is at the mercy of local authorities. There is nothing to ensure that the housing needs of districts are served, and not the purely financial state of the Council. There is no method of regulating the supply of housing, or of forecasting future expenditure and distribution. It is not even like electricity, which may be badly but not absolutely inequitably distributed. And yet we have felt justified in the creation of Electricity Commissioners and Boards to effect the economical distribution of electricity. Why not therefore a similar non-government board of business directors to regulate housing ?

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Mr. Winston Churchill recently condemned the House of Commons as a bad instrument for economic problems, however well adapted to debate; and the wind quite clearly blows in that direction, to swell either the sails of Whitehall officialdom or of some new system of administration. The major issue is of course the question of prices, and that is what, under Sir Tudor Walters's scheme, would be one of the chief duties of a Housing Commission. At the moment prices are low and houses can be built for less than £300. A great programme of housing, with prices uncontrolled, would send them soaring again, piling up still heavier burdens for the future.

R.I.B.A. CHILDREN'S CHRISTMAS LECTURES

The Hon. Humphrey Pakington is again giving a series of talks on architecture for children at the R.I.B.A. this Christmas. He has taken as his subject "Architecture Today and Tomorrow," and the general theme is the close relation between architecture and life itself. In the first talk, he tells me, he will emphasize the importance of looking back, and will compare the construction and equipment of the small house of the Middle Ages with that of today. In the second talk he will suggest some of the causes of the modern movement, such as new uses of materials, new requirements of buildings, and new views on health. Illustrations will be given of modern garages, factories and churches; and the design and equipment of the modern house will be discussed. In the third talk he will deal with the future, and will urge the necessity for foresight and planning on a large scale. Views will be shown of slum areas and garden cities, and the planning of London and of Paris will be compared. He will discuss the spoliation of the countryside, and will suggest that the works of man, properly handled, may be made to enhance the works of Nature.

SALVE, SOUTHPORT !

I have always thought highly of Southport, which is a very beautiful and joyful town, built upon a waste of sand, on a flat coastline, with a hinterland of very little interest, and yet a seaside town with a real structure, some considerable architectural amenity, and more trees and flowers in its public places than any other town of a like size and opportunity.

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The latest action of this highly civilized community is to submit to the local Architectural Society a scheme for placing minor architectural work which the Corporation are not themselves prepared to do with a panel of private architects practising in the town.

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The Corporation will notify the Society whenever there is work to be done, and architects will be chosen from a senior and a junior panel, and will do the job in collaboration. This is a fine thing to do, and the Corporation will not regret their wise and generous action, which, let us hope, will provide them a charming collection of minor architecture.

THE DRY BONES RATTLE

I am always a little afraid when I hear it said of the present generation: "That there is plenty of ability; but the young men should study the past"—especially of sculptors ! It has always seemed to me that if anything has driven sculptors into revolt against what is known as academic tradition as opposed to living tradition, it is this admonition, ceaselessly reiterated. I know it is sense if properly understood, and followed in a spirit of resolute inquiry. But is it always meant as that sort of sense—or am I mistaken in seeming to hear the rattle of dry bones?

TREE-PLANTING AT CAMBRIDGE

The Cambridge Preservation Society are setting a bright example in their method of treating the areas which they have been able to preserve from indiscriminate development. They are determined not only to save them but to hand them down to posterity more beautiful than when they were saved. Their Trees Committee have planned a carefully-thought-out planting scheme on the society's land fronting Madingley Road—on the Coton footpath. The trees are arranged in groups, beech and sweet-smelling poplar, black Italian poplar, maple, several of wild cherry and other small flowering trees. When properly grown, these trees will make a beautifully varied colour scheme both in spring and autumn, and a pleasantly contrasting arrangement of tree forms in winter. Later on, one of the footpaths is to be planted with individual memorial trees,

of necessity a more formal matter. The society's planting is to begin this month, and will be carried on as funds come in. We seldom realize how much the face of England owes to the judicious landscape gardening undertaken by the owners of estates and their architectural and horticultural advisers, fifty, a hundred or more years ago, and what we owe to their foresight. One sound way of preserving the countryside is to follow their example.

THE DEATH-WATCH BEETLE AGAIN

I see that Mr. Powys, in his interview with *The Morning Post* of December 18, complains that the peril of the death-watch beetle may be overcried. And so it may. But it is well to remember that at Westminster Hall the decay caused by the beetle was only dealt with just in time to save a catastrophe. Between the first survey and the time it took to get the scaffold ready for repairs, one stone corbel cracked with excessive weight. The wretched little beetles, by the simple system of working in the darkness at the back of the oak wall post, and gradually eating away the end of it, caused the pressure to fall on the extreme end of the corbel. The pressure, which had originally weighted the corbel at its back end, got worse by degrees, and at last stood at a point which was rather more than the Caen stone could stand.

THE NEW WEEK-END BOOK

For several years now *The Week-end Book* has kept us company as we sped countrywards on Saturdays, or, did we not possess this encyclopædia of pleasures, we invariably found that a far-seeing and thoughtful hostess had placed it by our bedside. After seventeen reprints and with more than 50,000 copies sold, this anthology of anthologies becomes more and more indispensable. In the 1931 edition we find that Mr. Rutherston's gay ladies and gentlemen have vanished, to be replaced by various very elegant people drawn by T. L. Poulton, and for the first time our own noble profession comes into her own. Architecture—" the art preservative of all the arts "—has been given a section in the new *Week-end Book*, and for twelve pages profuse with illustrations we are carried into the realm of architecture and instructed in the art of finding our way about.

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No longer do we fear the inevitable aftermath of a week-end at a famous country house, the dread inquiry : " Oh, you've been staying with Lord Dashwood at Dingledell. Interesting place, I've heard—what period? " To which we have feebly murmured : " Oh, it's a wonderful old place, dates back to the Middle Ages, I should think." Gone is the old ignorant vagueness. Now, with spontaneity, we shall exclaim : " Well, the main building is Late Tudor, but there is a magnificent Jacobean west wing, and a gate-house with a timber top story, etc." For muffled up in a large overcoat, *Week-end Book* in hand, we slip out in the dead of night and in the light of the moon trace out the curve of those Late Tudor windows; risk our lives climbing the rickety balcony steps in order to see those chimneys on the west wing and decide whether they be Tudor or Restoration; and run the risk of being thought utterly insane when in the pouring rain we stand on the lawn and gaze through field-glasses at the barge-boards on the west gable and, book in hand, debate—Early, Jacobean or Tudor?

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Gone are the days when, entering the parish church, we fled at the sight of the proud and helpful Vicar, lest he should expose our ignorance and cover us with confusion with his incomprehensible remarks on the architectural features of his church. Now we approach him with confidence as we glibly admire his Early English mouldings and differentiate knowingly between his thirteenth- and fifteenth-century windows, or exclaim at the beauty of the curve of his Norman porch. Yes, we have much to thank the *Week-end Book* for !

PANTOMIMICS

Extract from my diary, Tuesday, December 16, 1930.—With Letitia to A. A. Panto. Found ourselves in good company, Dr. Erich Mendelsohn sitting alongside President, just in front; the joke of it was, one of the fruitier of the nineteen turns turned on him. Prepared, of course, all unbeknownst; but one or two gags probably slipped in, elsewhere, to do him honour, after our insular manner. *Revue* more in Letty's line than mine, but will take it from her the percentage of bright ideas higher than in many ventures thought good enough to stage by the profesh. And they have nothing on the production : slick music, scenery, costumes, book and lighting—all students' own work, from the vertical-diagonal drop-curtain backwards. Of course, have got to remember this a strictly intimate show. Their night out : " if we've not entertained our audience, at least we've entertained ourselves." Thus, or to such effect, their final refrain. I'll bet they did both : the house screamed at shafts of satire, some of which flew over our innocent heads.

★

" Diagonal Views "—a spot of bother in a photographer's studio—owed its title to the President's address. " False Impressionism " exploited and exploded the association of ideas—the Association and *tout ce qu'il y a de la plus moderne* (L. says this a poor pun). At least two scenes modelled on real life (with personalities that I have no doubt whatever were real, too). In " U.S.A.A." probable effect on students of excursion to America (no other country considered big enough to take party any larger than this year's Scandinavian one) forecasted with such particularities as Big Boy (with chewing gum) and ukulele chorus of students; Buddy (with " hooch "); Housemaster (with graft)—obviously more caricatures, here. *Item :* fledgling architect, to whom enter plutocrat, assumed to require something in Hampton Court Palaces, actually to bestow commission to re-design boxroom to take third cistern. *Item :* serious young man in search of cloth (in spiritual sense) misdirected across Bedford Square and fetching up in A. A. Materials Bureau. *Item :* operetta, " The Sailor's Return," which I tell Letty, with my superior knowledge of the type (" Fudge ! ") I find no unworthy essay in " Beggar's Opera " vein. *Items* (several) : The Young Ladies, in sprightly dance and song.

★

Nearing end of page, but must record Mendelsohn's enjoyment of " Sic Transit." On stage, three cartoons of garden ornaments—florid nude, in relief, with two vases in support. Classical figures declaim rhetorical praise of Baroque. Snick ! Cartoons reversed : mechanistic devices and four black-clad robots. M. himself is named and appears in white uniform of chief robot. Classics put to rout. And, finally, a snippet of cross-talk : " Wot's all this 'ere Mendy—Mendly—wot's it, in the pipers ?" "Coo, don't yer knaow ? That's German for architecture, that is." "Ow, is it ? Well, that's all right, then." " Yus. Over 'ere we calls it green'ouses." ASTRAGAL

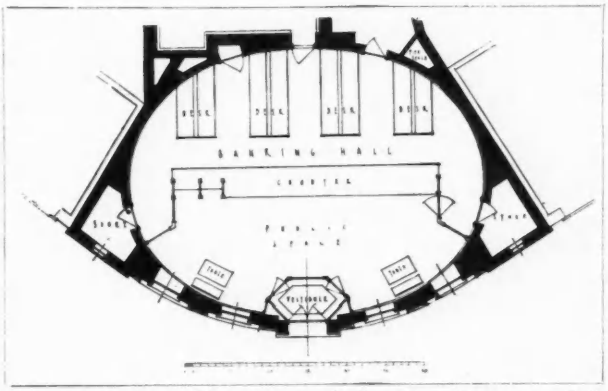
LIVERPOOL SAVINGS BANK

DESIGNED BY WILLINK AND DOD



The entrance is situated at the junction of two main streets. The door surround is of Portland stone; the step of granite. The keystone was carved by Mr. H. Tyson Smith; the lettering below the clock is of metal. The architects' elevations and sections of the main doors are reproduced on the following page.

THE Heathfield branch of the Liverpool Savings Bank is situated in a prominent position at the junction of two main streets on the outskirts of Liverpool. The site was formerly a quarry, but this had been filled in some years before the bank was built. After subjecting the subsoil to load tests, it was considered advisable to cover the whole area with a reinforced concrete raft. As it was not possible to construct a heating chamber and fuel store below this raft, the bank is heated by means of a gas-fired boiler, thermostatically controlled, and low-pressure hot-water systems with radiators. As



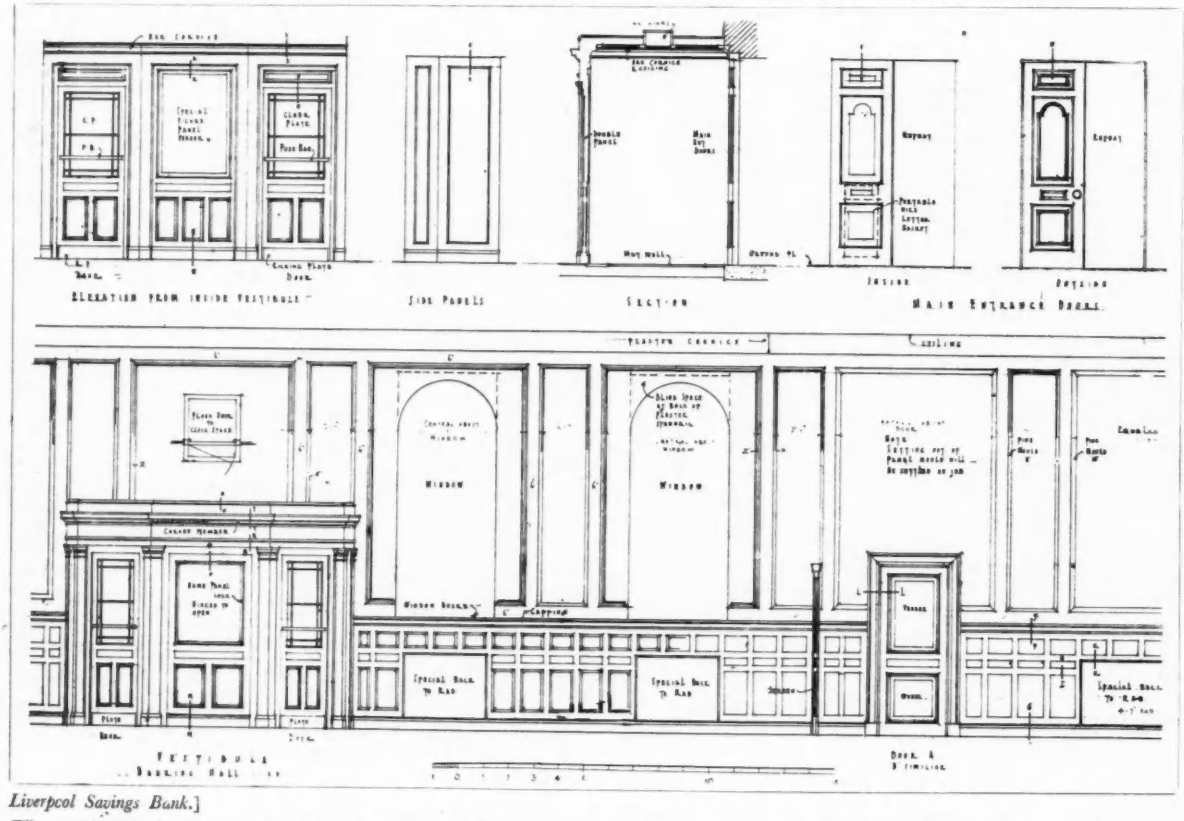
Ground-floor plan. The obtuse angle formed at the corner of the two streets suggested a curved façade, and from this followed naturally a banking hall, elliptical in shape. The clerks' room, lavatory accommodation and heating chamber (not shown on plan) are situated at the rear of the banking hall.

will be seen from the accompanying plan, the entrance vestibule, the floor of which is covered with Hopton Wood marble, gives on to the banking hall, elliptical in shape. In practice it has been found that this shape serves its purpose extremely well.

The counter, carried out in Austrian oak, wax polished, runs the length of the banking hall, terminating in doors leading to two small storerooms. The clerks' room is planned at the rear of the hall and leads to the heating chamber. Externally, the walls are of sand-faced bricks, with a special tile infilling, and the roof of Roman tiles.



A general view of the bank. The walls are of sand-faced bricks, with a special tile infilling, Portland stone dressings and a granite plinth; the roof is covered with Roman tiles which lend themselves naturally to the covering of a curved surface.



Liverpool Savings Bank.]

The architects' elevations and sections of the walls of the entrance vestibule, half the banking-hall, and the main doors. Four metal windows light the banking-hall; two are shown above. For the photograph of the main entrance doors, see preceding page.

DECORATION: THE WOMAN'S VIEWPOINT

BY GRACE L. FRASER

I THINK the average woman takes a much broader view of decoration than does the average man. Most men when they think of interior decoration think of the walls, ceiling and woodwork, and leave it at that. But most women visualize the room as a whole, and think not only of the skeleton of the room, but of the curtains, carpets and furnishings which will go to make up the complete room.

That women should view the subject in this manner is perfectly natural; for the carrying out of the actual decoration of the room has up to quite recently been man's work, and woman has come along afterwards and made the best job she could of it, adding the necessary furnishings, etc.

It is only quite recently that woman has become very room conscious. She did, it is true, fill and crowd it with masses of irrelevant and jarring decorative objects, but she could not have been said to be decoration conscious in any real sense of the word. All the hundred and one china and silver horrors and petty bits of furniture over which the unfortunate household stumbled during the last ten years of the nineteenth and the first ten of the twentieth centuries were not put into the room with any eye or idea as to their effect as a whole, but simply because each individual thing was liked or carried some sentimental memory. They had no relation either to each other or to the decorations of the room. But all that has changed in a most remarkable way in the last few years. The women of today are intensely keen and interested in their homes and their decoration; not only are they interested, but are studying and taking trouble about them, and they have at length very completely realized the value and importance of a suitably and well-decorated house. With this new-found interest in the æsthetic side of the house, as well as the practical, they have kept their habit of attention to detail, so that when they begin to worry out a scheme of decoration for a given room, they plan it as a whole, and not simply in terms of paint and wallpaper.

The woman of today wants, above all, a home which is not fussy and which is easy to take care of. She looks on extra mouldings and dust-collecting ridges with a jaundiced and suspicious eye. She is no longer to be put off with the remark that a moulding or cornice or picture-rail is usual; that it is usual is almost enough in itself to condemn it in her eyes. She knows perfectly well that a picture-rail in the average small house is bad because it cuts the height of the room, and she demands that it shall be taken away. If she has a Late Victorian room, with its extra and depressing height, she will then want that picture-rail back so as to focus the attention of the eye at a more reasonable height and take away from the room's bad proportions. But she is not going to accept a picture-rail without reason. This is, perhaps, a small point, but it is typical of the woman of today's whole attitude towards her house. She will not accept anything without reason, and she wants a clear and clean atmosphere.



[*By Willink and Dod.*

In the banking-hall the floor is covered with marble; the furniture is of Austrian oak, stained to a warm brown colour and wax-polished. The oak dado has been specially built up to follow the curved surface of the walls. On the left is the entrance vestibule.



The showrooms occupy part of the basement, ground and mezzanine floors of Orchard Court, a large block of flats, recently erected from the designs of Messrs. Joseph, architects. A near view of one of the shop windows appears on page 940.

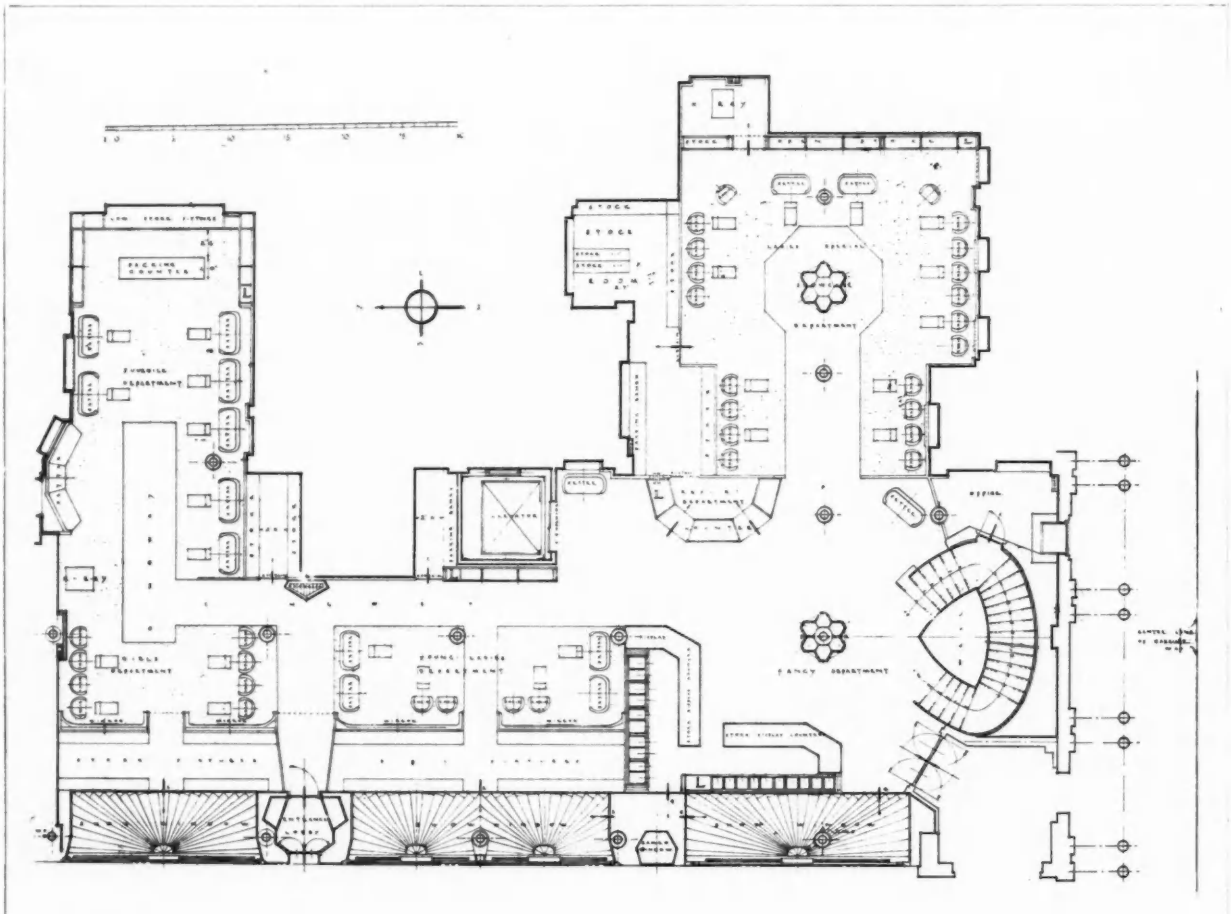
DANIEL NEAL'S

Portman

DESIGNED BY

THE new showrooms in Portman Square for Daniel Neal and Sons, Ltd., are of more than usual architectural interest. They occupy the basement, ground and first floors of that part of Orchard Court facing to Portman Square. This is a large block of flats completed in the early part of this year from the designs of Messrs. Joseph, architects. Thus was presented to Mr. P. J. Westwood, the architect for the showrooms, a problem that called for the most careful and delicate treatment, namely, that of designing a shopfront having a natural relation to and complete elevational sympathy with the existing superstructure.

The entire shopfront, some 200 ft. long, is lined with marble, and the base is of black polished granite. Bronze has been used for the fronts and grilles, and the window backs and



The showrooms are divided into two portions by the carriageway serving the residential flats. On the ground floor of the left-hand (north) portion, as shown on the plan above, are the juvenile and ladies' and fancy goods departments. Each shopfront is about 75 ft. long and the plans show clearly the intriguing outlines of the windows and showcases.

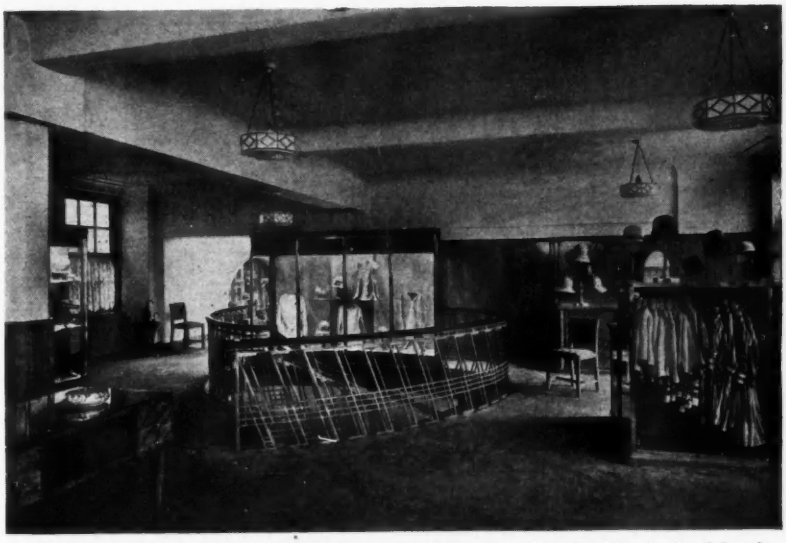
NEW SHOWROOMS

Square, W.

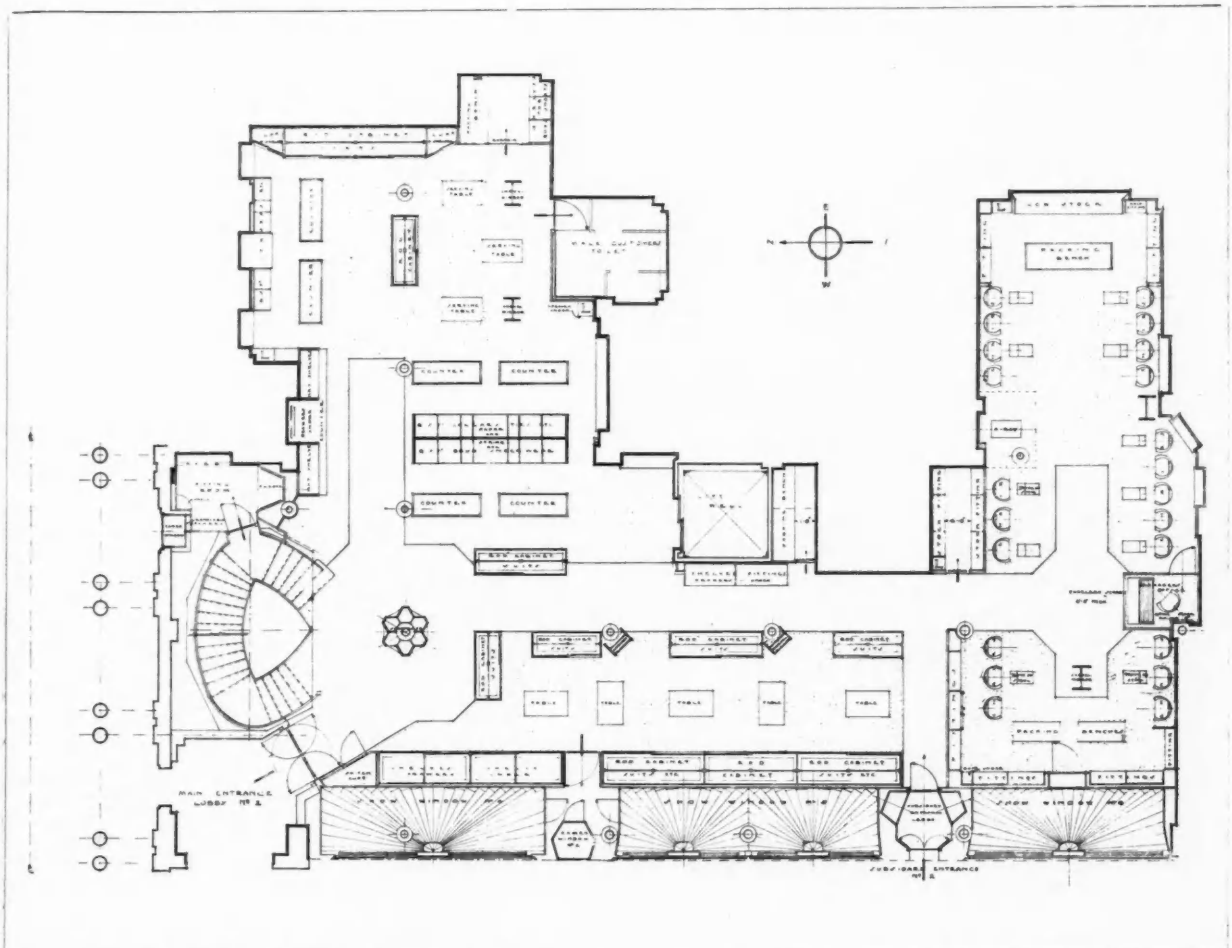
P. J. WESTWOOD

showboards are treated in the modern manner in walnut and sycamore veneer. All the decorative materials, obviously, have been selected for their peculiar qualities: marble for its impression of luxury and richness; granite for its tremendous potential strength, and when polished its powerful light-reflecting surface; and bronze for the manner in which it conveys the feeling of strength, efficiency and beauty of line. Obviously, also, the colours of the materials have been made to play their part in providing a suitable setting for the wares displayed.

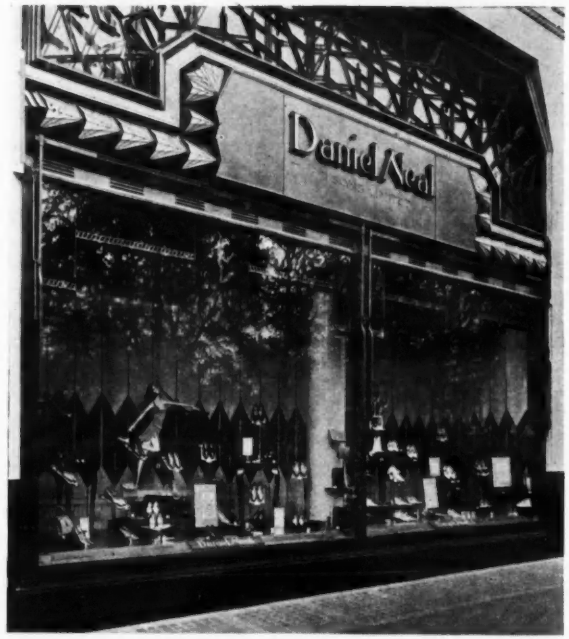
The interior of the premises has been effectively panelled and fixtured throughout in walnut and sycamore. The ceilings and friezes are in a warm cream colour, and the floors are of oak. Among the many interesting features of the interior are the staircases.



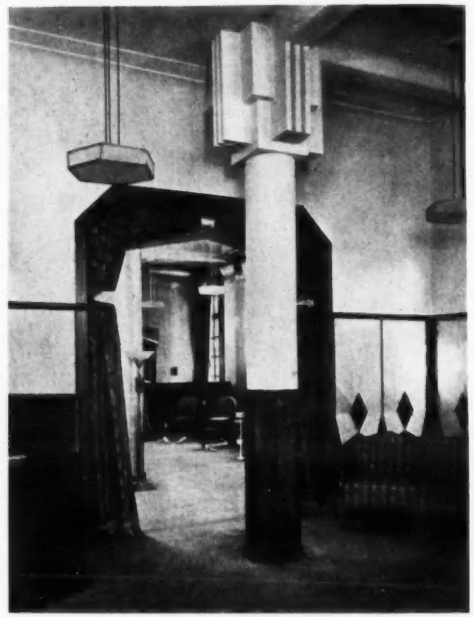
A showroom and one of the two staircases. These are of teak with ebonized hand-rails and wrought-iron balustrades. The whole of the interior work, including fittings, fixtures and showcases, was specially made to the architect's designs.



On the ground floor, in the right-hand (south) block are the men's outfitting and boot departments. Each block has a staircase of original and distinctive design (see above and page 940), and a lift to the basement and the mezzanine floor. There are four entrances to the show-rooms, all leading from Portman Square, and having wrought-iron gates.



One of the two shop-window bays that bear the firm's name.



This treatment of column, doorway and light fitting is typical of such features throughout the store.



The staircases are "equal and opposite" and arresting in contour.

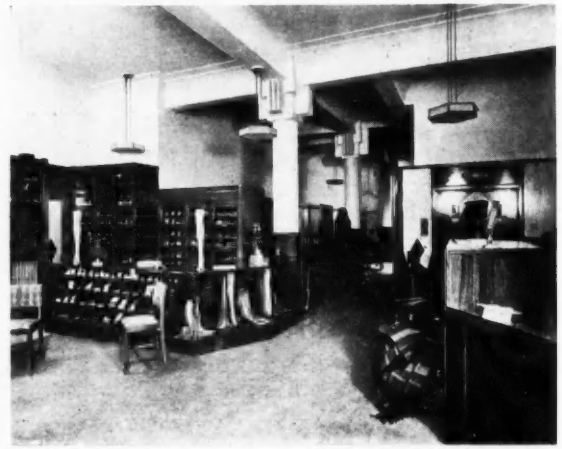


Daniel Neal's showrooms, Portman Square, W.]

One end of the ladies' shoe-fitting showroom.

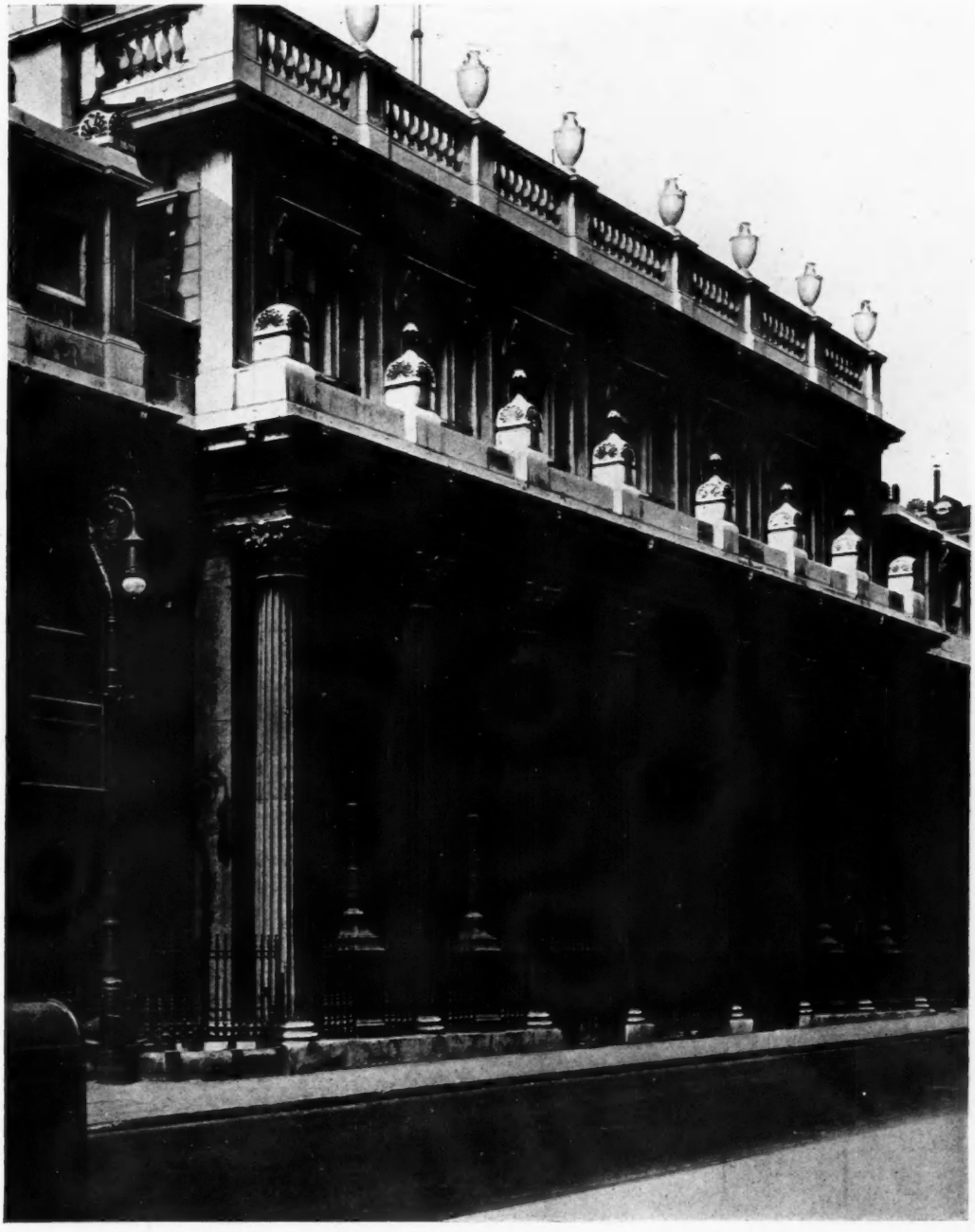


The juvenile department has dressing cubicles at the end.



[By P. J. Westwood.

In the ladies' hosiery and dressing-case department.



ENGLISH PRECEDENT No. 147

THE CENTRAL FEATURE, BANK OF ENGLAND, THREADNEEDLE STREET, E.C.

To give Soane's share in this central block its proper value, one should perambulate the outer walls and see his less touched work. Professor Cockerill raised the entire attic round the bank wall at the time of the Chartist rising, and Soane's work did not escape damage. —[E. MAXWELL FRY]

From The Old Bank of England (*Ernest Benn, Ltd.*), *of which a review will appear in our next issue.*

One end of the ladies' shoe-fitting showroom. The juvenile department has dressing cubicles at the end. In the ladies' hosiery and dressing-case department. [*By P. J. Westwood.*

LETTERS FROM READERS

An Architect's Claim for Fees

SIR,—I have read with considerable astonishment the "Law Report" of the case reported on page 922 of your issue for December 17 last.

As the report is obviously a summary, we must assume certain premises as being not only highly probable, but almost certain, before a case like this would reach the court room at all.

The first point which strikes the reader is the astounding difference between the amount of the claim and the actual sum for which the case was settled. Less than a tenth of the sum claimed!

Assuming that the architect's claim was just (as I have no doubt whatever it was), this gives some indication of an architect's chances of recovering anything like full value for his labours if the question is left to the judgment of a court of law.

If the architect "stood in" as stated by the defendant, surely evidence of this would have been forthcoming in writing. The fact that the sum claimed was only the balance of fees for work done would suggest that the defendant had previously recognized the justice of plaintiff's claim for fees as architect.

In the report no mention is made of professional witnesses for either side. If such were cited to give evidence, their evidence would have been illuminating as to the amount of support one is likely to secure from individual members of the profession.

As a member of the Institute, and one who has apparently served his country with distinction, one would have expected that the gallant colonel would have been supported to the full extent of the R.I.B.A. scale by his professional witnesses.

The judge before whom the case was tried is a man of great experience, and one from whom many words of wisdom have fallen in the course of his arduous and difficult duties.

The loss of nearly £3,000 in fees for work done must be a serious matter to any but the most prosperous and successful of architects, and it is most unlikely that any architect of standing would raise such a claim as that under consideration unless it was absolutely above suspicion and bona fide.

Obviously the ethics of the matter must have been entirely ignored by either one party or the other, and it should have been possible to have discovered the real state of affairs in this respect with comparative ease.

There are other obvious side issues which space forbids dealing with, but it is satisfactory to note that the court recognized the copyright of the drawings by ordering them to be returned to the plaintiff.

One point should never be lost sight of in cases of this sort, or indeed in any case where the value of an architect's services is being assessed by professional witnesses—and that is that no attempt should be made by a professional witness to "score off" or belittle the value of such services.

WILLIAM DAVIDSON

Gamage-Damage

SIR,—I find it somewhat difficult to understand what was in the mind of your contributor Astragal in writing under the above heading in your last issue.

I gathered the impression, however, that at the beginning of his paragraph he was mourning the hurt to his architectural soul, but that before the end of it the memory of his boyhood days proved too much for him, and he relapsed into indefinite exclamations.

After all, his difficulty is only the same as that of us poor retailers, who have so many different points of view to consider. There are many arguments which could be put forward "for" and "against," but I will not trespass on your space further than to say that I am not without some slight sympathy for poor Astragal.

ERIC M. GAMAGE
CHAIRMAN AND MANAGING DIRECTOR, GAMAGES (WEST END), LTD.

The Smoke Nuisance

SIR,—YOUR JOURNAL is rendering good service in giving special prominence to the subject of smoke pollution. It is indeed most desirable to stress the fact that smoke is a public nuisance for a variety of reasons; it often prevents the life-giving rays of the sun from reaching us, and it is extremely detrimental to architecture, merchandise and vegetation.

I have noticed, however, that the use of gas and electricity is frequently commended in the Press, while scant reference is made to other smokeless heating accessories, such as anthracite and coke. Moreover, the public appear to be ignorant of the fact that solid smokeless fuels are not only more efficient, but are actually cheaper than bituminous coal for domestic heating purposes.

A well-known fuel technologist recently worked out the comparative costs of heating a room 18 ft. by 16 ft. as follows:

Anthracite (burning continuously), cost per day, 5⅝d.; coke (burning continuously), 5¾d.; ordinary bituminous coal (burning fifteen hours), 7¼d.; gas (burning fifteen hours), 1s. 10½d.

It would appear, therefore, that it is not the cost of smokeless fuels, but the innate conservatism of the average British housewife that causes so much atmospheric pollution from the domestic chimney.

PRO BONO PUBLICO

Expiration of Lease

SIR,—In reply to the inquiry from "Perplexed," on page 910 of your last issue, I know of no particular cases that shed any direct light on his client's project; but when a man sets out to test the implied meanings of a legal clause, he is holding out a very tempting—let me use the simile, football—to the legal profession who will gather round and enjoy the game to its utmost. Now the legal profession, being professional players, must be paid, however much they enjoy the game. At the end of several years the tenant might, of course, gain a wonderful revenge on his landlord in seeing him pay both teams. On the other hand——

After this uncalled-for homily, let us get back to the black paint. The first question is: Will it "cover"?—if not, it may not be "tenantable." If it will "cover," what is the matter with it? Personally, I am rather fond of it. I had an office once, all the woodwork of which was painted black, and very well it looked and very well it lasted. I can remember a rather fashionable mode of entirely black rooms; and lacquer and gold looked very well in them. It might, of course, be a little dull to have all the rooms the same; but unless the house is panelled throughout, the landlord would be able to get variety in the wall coverings.

No; I doubt the success of this jest.

H. D.

SIR,—The question in the letter signed "Perplexed," in your last issue, seems to be one for a lawyer to answer. So much depends on the exact wording of a lease, but it is difficult to understand how his client feels aggrieved, as it must be assumed that he read his lease before signing it.

Possibly there is more behind the grievance than the lease, in which case "Perplexed's" client would seem to be laying himself open to attack if he takes the proposed course of avenging his assumed wrongs.

I have heard of a case somewhat similar to this, but on reverse lines. The tenant of a house had an agreement whereby the landlord was bound to paint the outside of the (stuccoed) house once every three years. He failed to do this, so the tenant, after due notice to the landlord, painted it himself in broad stripes of red, white and blue. The affair attracted a good deal of notice and got into the papers, which was very unwelcome to the

landlord. He complained to the tenant but was told, "Well, as you would not do it, I did it myself to my own taste, and next week I am having it done again like a Union Jack." The landlord then carried out his part of the agreement.

ARTHUR WELFORD

SIR,—With regard to "Perplexed's" letter in your last issue, I recollect a similar case in like circumstances which occurred in Bishopsgate about thirty years ago. In this case all the paintwork was executed in bright yellow, which at the time was considered an offence, but might now be the height of fashion! The incident sticks in my mind because, as a consequence, the covenants of the new lease were expanded to include (after the usual "coats of good lead and oil paint"), "finished to tints approved by the lessor or his surveyor."

In the present case I should think that the words "properly tenantable condition" might lay the humourist open to attack; in the case above cited they were lacking, and the lessee was considered not worth powder and shot.

EDWIN GUNN

SIR,—If the tenant paints the whole of the internal woodwork with a coat of black paint, he is breaking the conditions of the lease, inasmuch as he is not leaving the house in a "properly tenantable condition."

Good tenantable condition or repair, according to Lord Esher in *Proudfoot* v. *Hart*, is such repair as would make the house reasonably fit for the occupation of a reasonably minded tenant, of the class who would be likely to take it.

I cannot imagine a reasonably minded tenant not objecting to a house where the whole of the internal woodwork was painted black.

SIDNEY F. HARRIS

SIR,—"Perplexed," if he has any real experience of life, knows very well that there can be only one answer to the query contained in his letter in your last issue, but one cannot help speculating on the amusing possibilities of the situation. His client wishes to "express his displeasure." This would suggest that he has had some sort of dispute with his landlord regarding certain matters pertaining to the lease.

To paint the woodwork of the house in such a manner as to "express his displeasure" would obviously ruin the property.

Should a law case arise out of any such action it is clear that, if this inquiry could be traced back to its source, the landlord might be awarded heavy damages against the tenant.

Recent cases in the courts in which architects have been implicated show clearly that the law takes little cognizance of the ethical or just aspect of cases, and if vindictiveness were suspected or proved "Perplexed's" client would certainly lose his case, no matter what were the original grounds for his grievance.

If, however, the client wishes to have a sporting shot at the business, I would suggest that he works out a scheme of black and vermilion on Chinese or Japanese lacquer lines. Say, black styles to the doors and vermilion panels, or black doors and vermilion mouldings and architraves.

Or again, he might imitate the third period of Pompeiian decoration and introduce picture post cards of cupids at the angles of his black door panels, These are mere suggestions which could be elaborated at very little expense, and he might be able to prove by expert decorative artist witnesses that the scheme had been worked out on the most approved modern lines.

But the mere fact that "Perplexed's" client wishes to "express his displeasure" implies spite and revenge, and these are low qualities only found in men of deficient culture and low breeding, and the answer to the query must be: Do the decent thing—which in this case means that the tenant must follow the implied terms of the lease.

W. D.

QUESTIONS THAT ARISE

Damp Prevention

H. O. R. writes: "*What is your expert's opinion regarding the following two queries?*

"(a) *Can any lime mortar (giving particulars of quality of lime) be depended upon to keep out damp, and is a 1 to 3 lime mortar better for this purpose than, say, a 1 cement to 6 sand and mortar? Further, does the addition of cement to lime mortar assist the damp-proofing qualities?*

"(b) *Will cellular (having the appearance of a fine sponge and uniform) brick or fine concrete function better than good quality bricks or fine concrete (apparently without air spaces), when used with the object of keeping out driving rain? I note claims are made to this effect by a company making bricks and another concrete of this type. I have no experience myself, but think there may be something in the claim for walls beyond a certain minimum thickness, and providing the air spaces do not act as capillary tubes.*"

Presumably this question (*a*), and that following, refer to mortar used in the jointing of ordinary brickwork. The ideal to aim at is a brick and a jointing of as nearly equal absorbency as possible; hence quality of brick and mortar available must interact at choice, and a direct and prescriptive answer to the question is impossible. There are very many instances where a 1 to 3 lime mortar has successfully combined with brick to produce a damp-proof wall, and there are also 1 to 6 cement mixtures which have done the same. The addition of lime putty, or water containing lime ("milk of lime") to cement mortar, by (as it were) greasing or fattening the mixture, and so admitting a closer, denser, composition—the ideal of a jointing substance—may improve the resistance to penetration, but the converse is not necessarily true.

It is unquestionably true that porosity of structure in a brick or concrete is not necessarily the same thing as absorbency, but it is not safe to apply this as a general conclusion. For a discussion of this complex matter reference should be made to the annual report of the Building Research Board for 1929, published by H.M. Stationery Office.

G.

Renewal of Paint

B. P. writes: "*I have recently completed a residence two miles distant from the nearest village and some six miles from the nearest town. The glass in the metal casement windows is secured by putty. The putty is painted green, to match the rest of the external painting. Small birds, mostly 'tits,' persistently peel off the green paint and attack the putty below. The paint and putty has been renewed where damaged, but the attack persists.*

"*The people who supplied the putty to the builders state that it is made with linseed oil, and they have always supplied the same putty to their customers without receiving any similar complaint. We are applying to the builders for a sample of the putty and have asked a chemist for his advice. He suggests mixing alum with the putty, making good with this, and re-painting.*

"*Does your expert think this will stop the nuisance? If not, what can we do? We are advised that it is illegal to lay poison for the birds.*"

Ordinary putty is commonly composed of whiting and linseed oil. As the latter is prepared from linseed, which is a favourite food of all finches, the attack by birds is understandable; it is probably rendered more readily possible by the slow hardening which such putty undergoes when used in metal casements—without absorbency.

The addition of alum would probably have the effect desired, but the right putty to use in fixing glazing to metal casements is a mixture of red and white lead with linseed oil, and it is difficult to imagine birds partaking of this as a diet! Try the alum, which would be harmless to the birds, who may have acquired a taste for putty from their previous experience, that might result in their first white lead meal proving fatal.

G.



Type No. 0 (see table printed on page 947). One end of the largest room (2) in the house, plans of which are reproduced below. Measuring about 10 ft. 6 ins. by 16 ft., it is designed as a sitting-room, and also to give sleeping accommodation for three. The door occurs in the right wall, and on the near side of it is a second convertible bed, similar to that shown. The third can be placed at convenience.

HOUSES SCALED TO INCOMES

Sweden's Contribution to the Housing Problem: i

THE Housing Section of the Stockholm Exhibition (of which a general account appeared in our issue for July 16, 1930) is of far greater interest than would at first appear to the casual visitor from abroad. The exhibits are not just a collection of manufacturers' goods attractively arranged. They are a genuine contribution to constructive social thought.

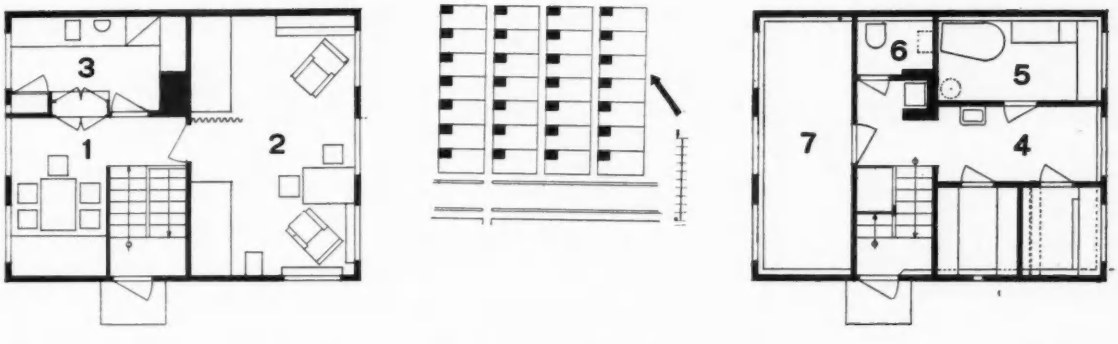
Arranged and planned on a rigidly economical basis, they show how the Swedish worker and business man earning a stated income can afford to house himself; what accommodation he can afford at the current level of economic rent, and what furniture he can afford to buy in the shops of Stockholm. The whole section is a notable effort and one which requires, in these days of haphazard living and chaotic standards, to be followed up in all countries, not excepting our own.

The account which follows is based on the notes contributed to the official Exhibition catalogue:

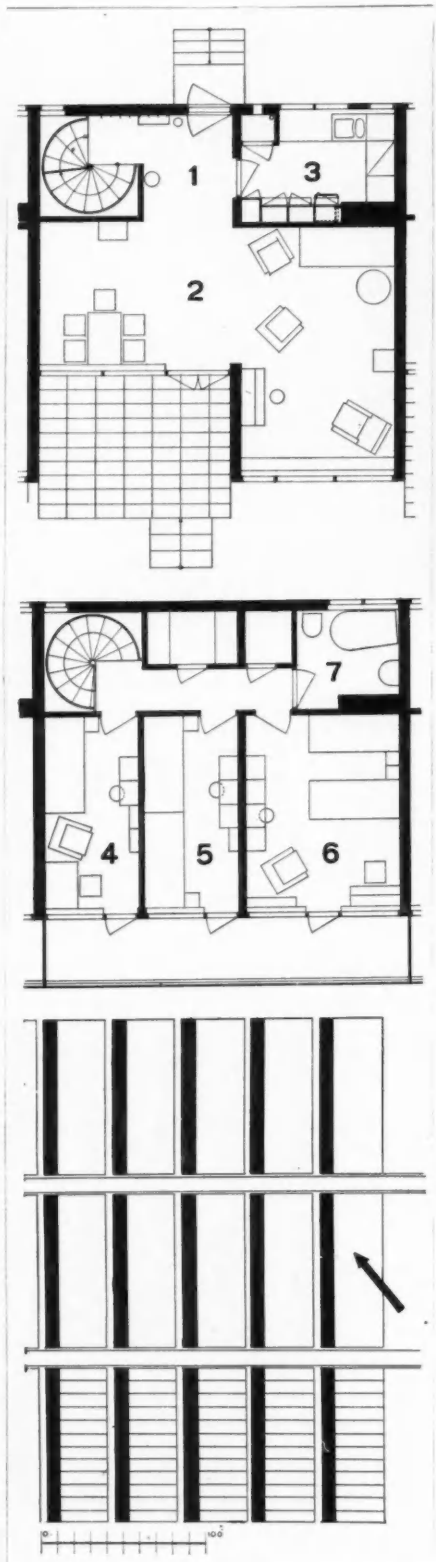
THE ECONOMIC SCHEME

The idea of the housing section of the Stockholm Exhibition came into being about two years ago, when a series of informal discussions took place at the home of Dr. Gregor Paulsson. At these meetings one conclusion gradually emerged, which was that a housing exhibition for people of our time must, if it is to produce any lasting result in work and policy, attack the problem of house building and house equipment from the very foundations. At the same time, it must keep in close contact with the economic realities of today. In other words, its task must be to show how we may produce the dwellings we require, and produce them at a price we can afford. By *we* is understood the great mass of people whose incomes are within those limits where the payment of rent is a sensible item in the yearly budget. All that lies beyond these limits does not enter into the scope of such an economic study, and is significant only in so far as it provides a field for the fine arts and the luxury trades.

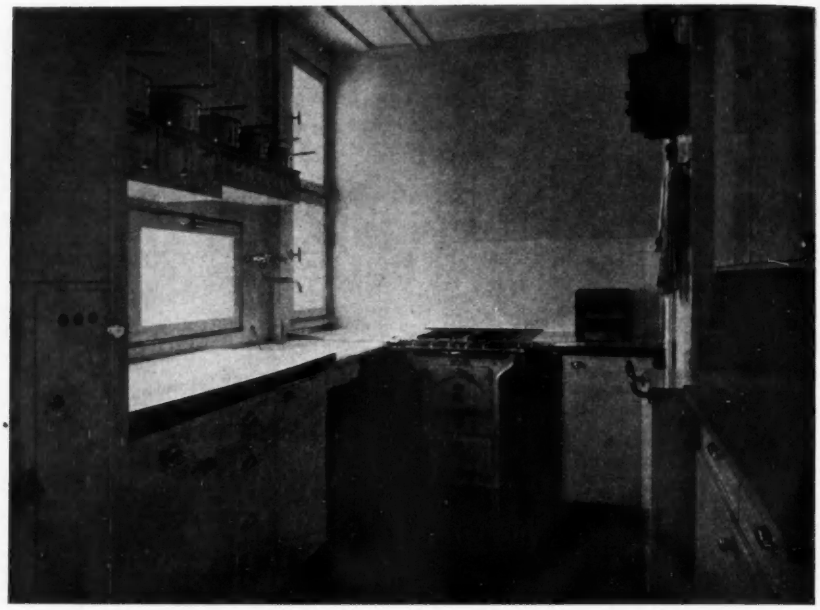
The architects, Gunnar Sundbärg and



Type No. 0. First floor; site; and ground-floor plans: (1) dining-room, with sleeping space for one; (2) sitting-room, providing sleeping accommodation for three persons; (3) kitchen; (4) dressing-room; (5) bathroom; (6) w.c.; (7) workroom.



Type No. 8. Ground floor, first floor, and site plans. There is also a basement, containing storeroom, larder and washing room.



Type No. 8. A view of the kitchen—(3) on the plans. Other references: (1) hall; (2) sitting room; (4) and (5) bedrooms for one or two; (6) bedroom for two; (7) bathroom.

Uno Åhrén, were appointed by the committee of architects of the exhibition to work out a scheme for a series of dwellings to be included among the exhibits. When the outline of such a scheme had been produced, it was decided to hold a competition among a number of invited architects for the detailed working-out of the various types.

Attempts were at first made to represent among these type-dwellings not only the various strata of society, but also the different conditions of life prevailing throughout Sweden. This, however, proved to be impossible, and the housing requirements typical of the newer Stockholm suburbs were adopted as a standard. This choice afterwards proved advantageous in many ways; more particularly in so far as it caused the competitors to concentrate on what is in effect the most difficult and most unfavourable set of conditions obtaining anywhere in Sweden.

The first condition set for all the designs submitted was that they must be economically self-supporting without any form of subsidy whatsoever. Competitors were invited to give special study to the most difficult type of dwelling of all: that in which a large family has to be housed with only a small income to support it.

The maximum income for any of the dwellings included in the competition was to be 15,000 crowns (£826). When it came to defining the various economic levels which were to be provided for, it was found that official statistics gave very little help. A special investigation was, therefore, undertaken on behalf of the committee, in the course of which the circumstances of a thousand households, comprising 3,630 individuals, were inquired into. The households were chosen from all parts of the Stockholm villa and apartment districts.

The inquiry covered the following headings:

1: Accommodation and rent. (The rent of houses was taken at a figure representing the annual charge on capital expenditure, plus the cost of services covered by the rent of flats.)

2: The size of families. (The number of persons over the age of thirteen only, was reckoned.)

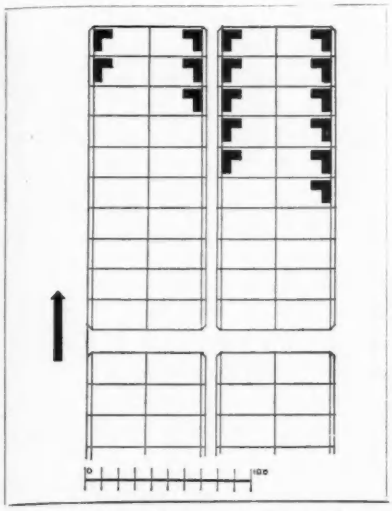
3: The percentage of the household income expended in rent.

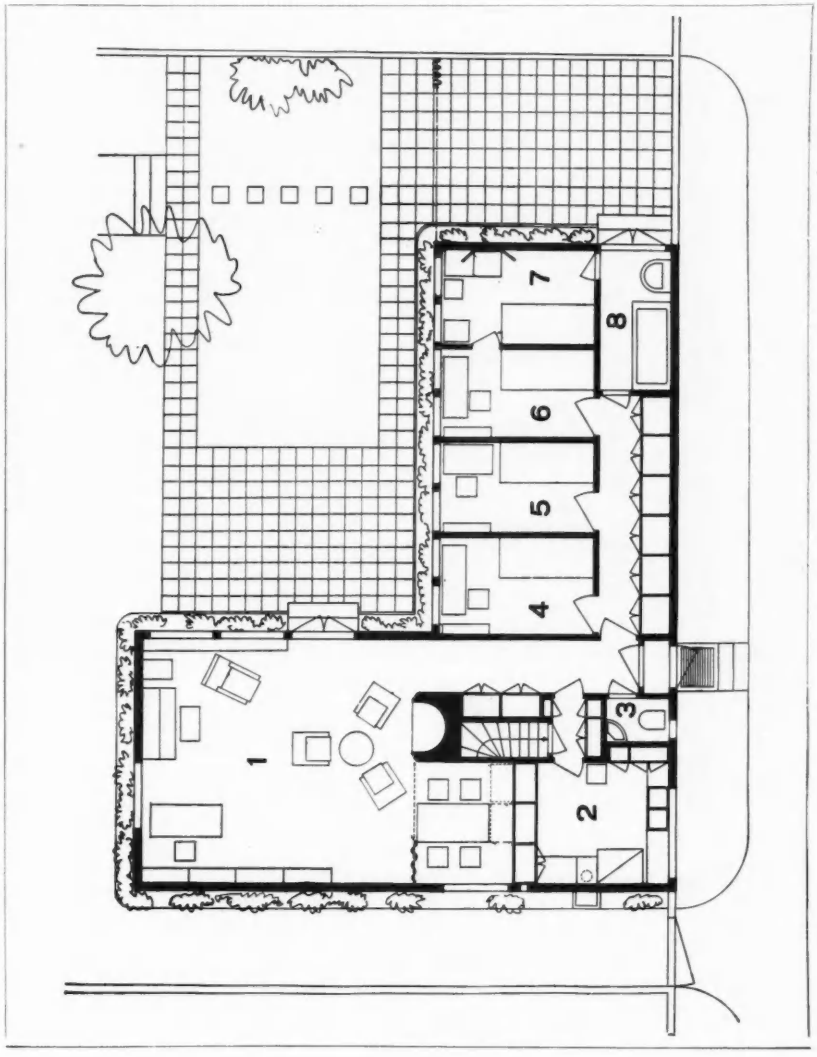
4: The comparative rent percentage for different levels of society.

5: Density of population. (The number of occupants for every hundred rooms.)

Under this last heading it was found that a severe congestion prevailed in the smaller types of dwellings. The average number of inhabitants in dwellings containing less than three rooms and a kitchen was 176 persons for every hundred rooms.

As regards the rent percentage, it was found that among the lower grades of income, a greatly excessive proportion of this income was paid out in rent. In certain sections of the scale the percentage rose to 35 and even above, whereas 20 to 25 per cent. is as much as is generally considered legitimate.





Type No. 10. Site plan and ground plan (the accommodation is on one floor): (1) Sitting-room; (2) kitchen; (3) toilet room; (4) (5) (6) (7) bedrooms for one; (8) bathroom.

Another interesting fact which emerged was that the workers paid considerably less rent in proportion to their incomes than did the professional classes and civil servants. The highest proportion of rent was paid by the upper professional classes such as engineers, etc.

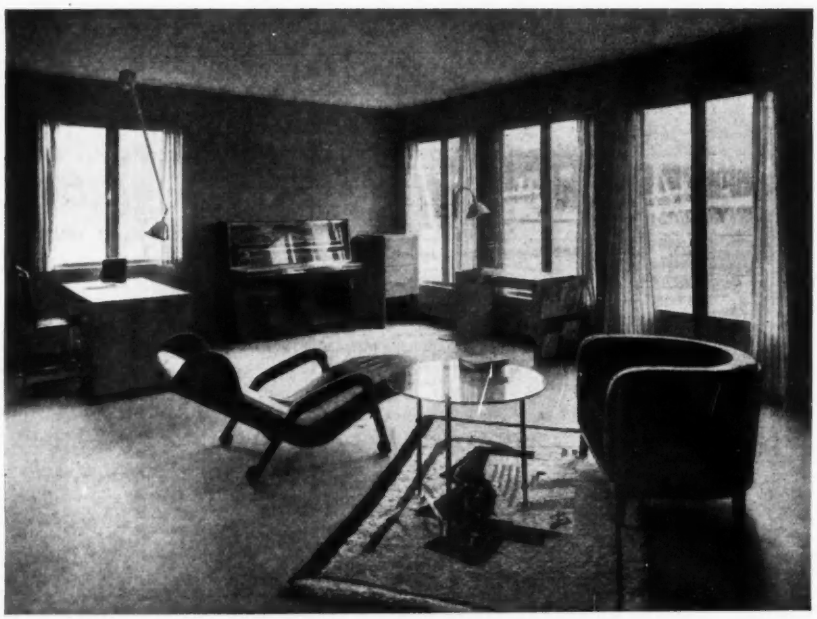
The various requirements were officially set out in a series of typical summaries (tables A and B on this page). The question was next considered whether it was possible to fix the conditions of life in still greater detail than that covered by these tables.

Table A—HOUSES.

Type No.	No. of persons (children under 13 are reckoned as ½).	Total household income.	Rental value plus maintenance.	Notes.
		£	£	
0	2–4	*circa* 165	44–49	
1	2–3	165–220	49–55	
2	2–3 (terrace house)	275–413	49–55	
3	2–4	220–303	60–71	
4	2–3½ (terrace house)	220–330	60–71	not erected
5	4–5	248–358	60–71	
6	4–5 (terrace house)	248–358	60–71	not erected
7	2½–4	330–517	71–82	not erected
8	2–4 (terrace house)	330–517	71–82	
9	4–6	275–440	71–82	not erected
10	2½–4	358–660	88–104	
11	3½–7 (including servants)	358–660	88–104	
12	3–5 (including servants)	495–660	110–137	not erected
13	3–7 (including servants)	517–826	137–165	not erected

Table B—FLATS.

Type No.	No. of persons (children under 13 reckoned as ½).	Total household income.	Rent.
		£	£
1	1	*circa* 165	34–38
2	1–2	165–220	38–47
3	1–2	198–275	49–60
4	2–2½	165–220	41–49
5	2–3	192–330	55–66
6	2–3	248–385	66–77
7	2–3	220–303	60–71
8	2–3	330–495	82–93
9	3–4	275–385	66–71
10	3–4	385–660	93–110
11	4–4½	248–385	60–71
12	4–5	385–660	88–104
13	6	440–826	110–132
14	2½–3½ (including servants)	440–826	110–132
15	5–6 (including servants)	605–826	132–154



Type No. 10. Sitting-room (1). This combined parlour and dining-room occupies the short arm of the L-shaped plan, and measures some 18 ft. by 15 ft.

What are the various special requirements of a dwelling that will represent the whole of our modern conception of the individual and its relation to the family and to society? It may seem that to examine into this question is to come dangerously near to an excessive standardization of life. It is, however, becoming more and more necessary to study the normal dwelling requirements of today very closely indeed, for if the production and consumption of dwellings with all their accessories is to be properly regulated, a standard type is bound to emerge whether we like it or not. To make sure that this standard is a decent and satisfactory one is, indeed, the central question of the whole of our housing problem.

The first axiomatic requirement laid down was that every adult member of the family should have a separate room, no matter how small. The second was that in each home there should be one large room for the common use of the family. These two requirements should be met in all dwellings of whatever kind, and so should provide the opportunities for society and solitude which every person needs.

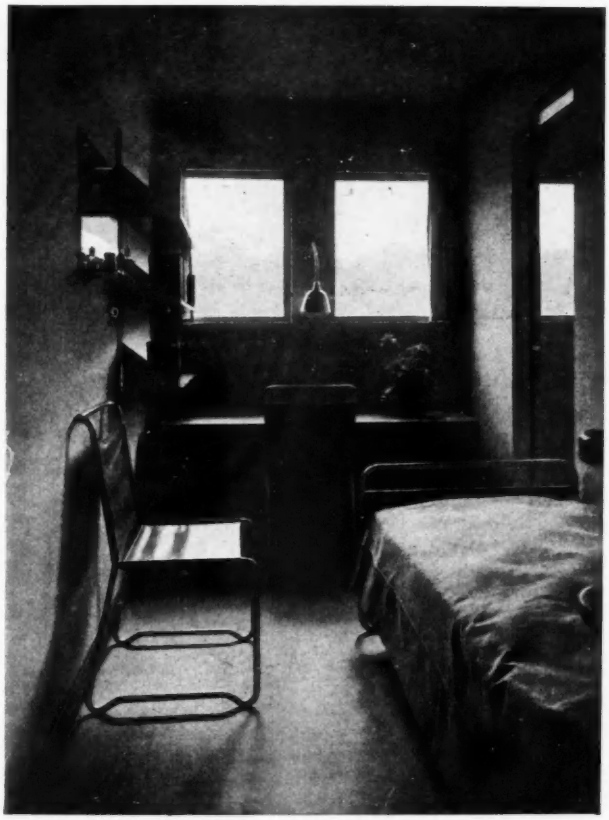
Other questions which were studied were that of aspect and sunlight, and the conditions of the preparation of food. The average size of the kitchen today is growing constantly less; and more particularly among the classes with smaller incomes. Meals consist of an increasing proportion of ready-cooked or semi-prepared foods.

The competition for the different housing types was by invitation, and the designs were assessed by a jury composed of five architects in addition to Dr. Gregor Paulsson, the Director of the Exhibition, and E. G. Asplund, the Exhibition architect. From the material furnished by the competition, the most adequately worked-out types were carefully selected and were, with certain amendments made by the jury, executed in the Exhibition grounds.

ECONOMIZING SPACE

One fairly common way of reducing the modest space taken up by the kitchen in Swedish dwellings with one living-room is to divide the area occupied by the kitchen into two parts by means of a glazed partition. The front half can then be used as a dining-room, while the rear half contains all the cooking utensils and equipment in a concentrated space. In the smallest type of dwelling this arrangement has proved in the past a considerable benefit, since the dining-room half has been used as an occasional spare bedroom and also as a day nursery in which the children are able to play under the mother's supervision, without being in the same room with her. Another well-known device is to provide the principal living-room with a sleeping alcove large enough for two single beds.

When one has to deal with dwellings containing more than one living-room, the problem of economizing space is made considerably easier. The one



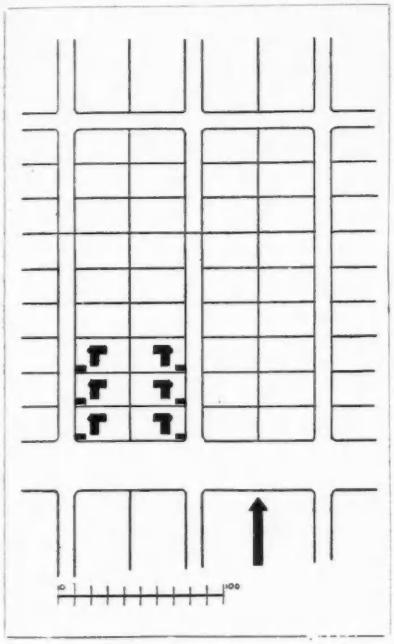
Type No. 10. Bedroom (6). This has a communicating door with that adjoining; the other two bedrooms are single. All four are served by a corridor with cupboards, leading to the bathroom.

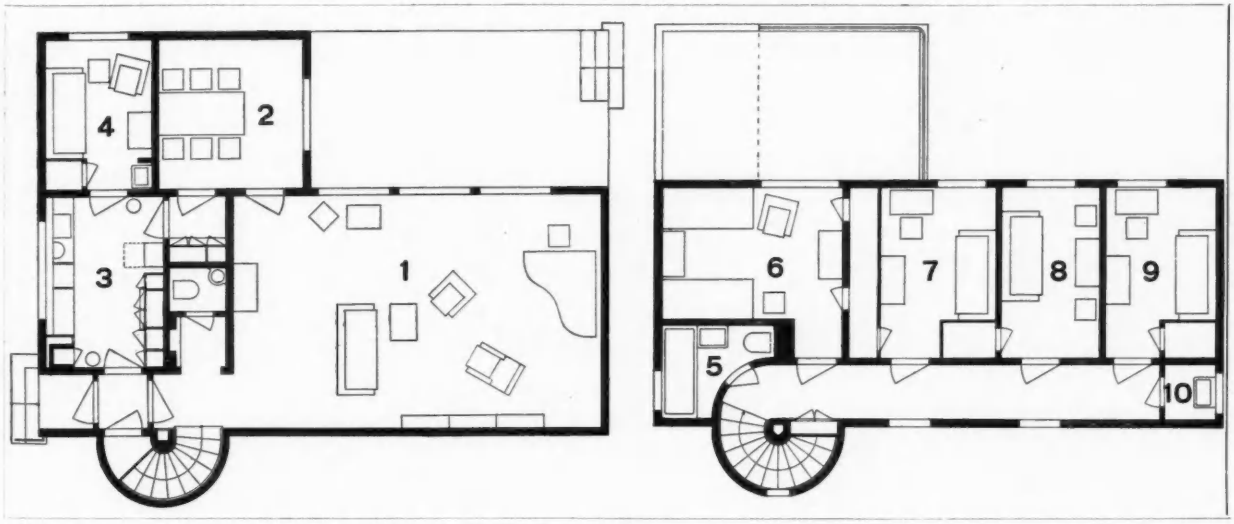
fundamental difficulty is the minimum size of individual rooms. The Stockholm building bylaws do not generally allow a room of any kind to contain an area of less than 96 sq. ft. Clearly, a principal living-room should never be smaller than this, but it may sometimes be desirable that a spare bedroom, study, or other suchlike room should have a slightly smaller area.

It is a well-known fact that the area of a room and its cubic content have no necessary connection with its hygienic properties. Given effective ventilation, a bedroom with a floor area of 64 sq. ft. may be used by two persons and will provide far better conditions than a room twice the size inadequately ventilated. It follows that the problem of ventilation is one which has to be given special consideration when one is dealing with dwellings of the more restricted type. The height of rooms, also, may sometimes be reduced in order to effect economies. The statutory minimum in Stockholm is 8 ft. 10 ins., but in certain circumstances may be reduced to 8 ft. 2 ins. With good ventilation, however, this minimum may safely be reduced on occasion. In those places where it is possible to combine rooms of different heights, the lowering of the room height in some of the rooms results in a very great saving in the total cubic space, and may mean a difference between economic failure and success. Sometimes attempts are made to build the principal living-rooms of such a height that small rooms can be inserted on two levels, one above the other, by means of an added mezzanine. These smaller rooms will then be comparatively low, say 6 ft. 10 ins., and their combined height will be equal to the height of the principal living-room, although the cubic content of this living-room will be comparatively generous in a dwelling of its sort.



Type No. 12. Dining-room (2). This is approximately 10 ft. square on plan, and has two doors, communicating with the sitting-room and kitchen, via a pantry, respectively.



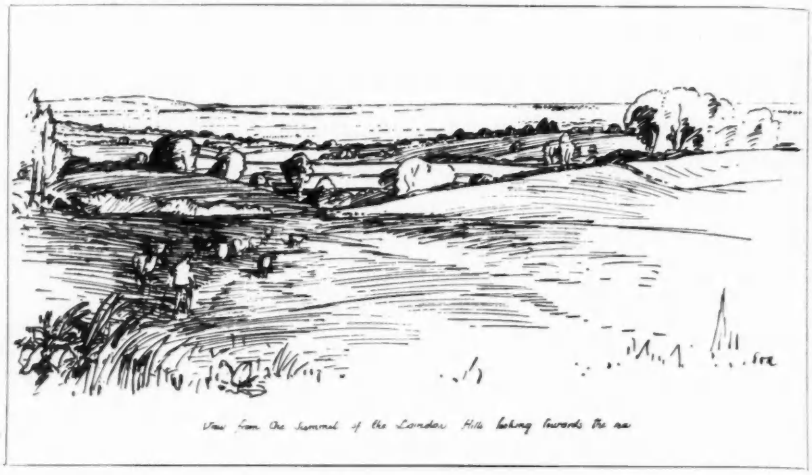


Type No. 12. Site, ground- and first-floor plans: (1) Sitting-room; (2) dining-room; (3) kitchen; (4) servant's room; (5) bathroom; (6) bedroom for two; (7) bedrooms for one or two; (8) and (9) bedrooms for one; (10) toilet room. There is also a basement, extending over the whole area of the site.

SOUTH ESSEX

BY PROF. S. D. ADSHEAD

On this page are printed extracts from Professor Adshead's paper on "South Essex: its Docks, Industries and Houses, London's Industrial Development," illustrated with two sketches from his pen, read before a gathering of the London Society at the Royal Society of Arts, on Friday last.



View from the Summit of the London Hills looking towards the sea

BEFORE the war, Essex was a county of wandering lanes, secluded villages, lonely marshes and wide stretches of pasture land reclaimed from the Thames. There were also the beginnings of those wharves and docks which are destined one day to fringe the river from East Ham to the sea.

In the spread of building, which since the war has extended beyond the nineteenth-century suburbs, no area has undergone so rapid or so complete a change as has Essex.

Essex is being transformed from a sparsely inhabited agricultural county into a vast area of factories and little houses.

Town Planning is the art and the science which controls and guides the confused efforts of single individuals, that the best interests both of the community and of the individual may result. There are influences and tendencies in modern developments that differ fundamentally from those that have obtained hitherto; we cannot resist them; it would be inadvisable to attempt to do so; we can only prepare our plans to suit the new order in a new way.

The development of Essex since the war is indicative of new and original kinds of development which it is the business of the town planner to thoroughly understand.

A higher standard of living amongst the lower and middle classes, combined with increased facilities for travelling, has, during the present century, been responsible for enticing thousands of enterprising people out of the solidly built-up residential areas of East London into the recesses of Essex, along each of the several railway lines; and industries which, until recently, were confined to the London area, have begun to appreciate the advantage of riverside sites.

These two movements are not only quite new, but have no relation to each other.

The industrial worker at the docks and at the Thames-side industries now lives either in London or in the immediate vicinity of his place of work, as, for instance, at Barking, Grays and Tilbury. The resident of Hornchurch, of Upminster and of Canvey Island has today no interest whatever in a Thames-side industry. This, however, is probably only a temporary condition.

A very cursory examination of Canvey Island, Benfleet, Thundersley, Laindon, South Dagenham, East Rainham, and dozens of other places of such mushroom growth that they are without names, shows us there is a very real difference between these very new places and the developments that have taken place nearer London and closely adjoining older residential areas such as Barking, Upminster, Brentwood and Southend.

The latter conform generally to the conditions of suburban development such as may be seen anywhere in any of the bylaw-built suburbs of London. The former, however, are more like pioneer camps in a new country.

The problem is to find sites for workers at a reasonable distance from or in close proximity to their work. Assuming that the riverside in South Essex was to develop as a densely packed industrial area interspersed with accommodation roads and branch railways, and employing approximately twenty-three hands per acre, then the industrial population employed along the banks of the river and spread over the industrial area—which contains 17,000 acres of undeveloped land zoned for industrial development — would amount to 391,000 workers.

With a strip of land averaging three-quarters of a mile in width, and extending from the Beckton Gasworks to Canvey Island, we have here a magnificent industrial area for London. There is any amount of room for wharves, docks, railway sidings, approach roads, and all the accompaniments of a great industrial area. The problem to be solved is how to deal with the housing of the operatives. In my Regional Report I have made proposals for accommodating them in numerous small townships, as reasonably near their place of work as the amenities of a residential area would permit. Residential towns, as such, are not improved by the juxtaposition of industries, and the great advantage of Essex is that the industries can easily be collected along the river, with the residential areas in close association behind.



The Beach at Shoeburyness

THE SPECIFICATION WRITER

On the Job: Excavation

BY THE GUV'NOR

NOWADAYS, when there is a tendency to sink ever deeper and deeper in order chiefly to increase floor areas of expensive sites, excavation becomes a still more important operation and a matter of great responsibility.

Owing to the nature of our London subsoil, composed as it is in most cases of swampy ground made up with a filling of anything available at the time, we very rarely find we are dealing with virgin soil. Old drains, wells or sewers all add to our difficulties, as also do roads adjoining, which have been undermined by countless works in trenching for pipe lines, cables, mains, etc. All these render the digging of deep foundations a real engineering job, and should be very carefully watched if we are to avoid repetition of such happenings as we have had recently.

The one safe way to tackle this job is to take out a trench for retaining walls, during this operation removing the existing vaults, if any, and leaving the dumpling solid to strut against. We can then build the new wall complete and allow it to take up its duty, leaving us at liberty to deal with the block-digging in a straightforward manner. However, we very rarely find ourselves in this ideal position.

Owing to the greater depths reached, we find that a self-supporting retaining wall becomes so massive that we can economize in material, in space, and in time, and lighten the load on the foundations, by so designing the wall that most of the thrust is taken by the steel framing of the main structure.

This is accomplished by forming a complete grillage system, fixed vertically in the retaining wall, consisting of stanchions at intervals, connected by horizontal beams, with other vertical members, fixed about 4 feet apart, the whole being calculated to withstand the stresses imposed upon it when connected by cross beams to the steel-frame structure (see figure one). A filling of bricks or concrete may be added just as a ground for asphalt or a face for plaster, and to encase the steel grillage, but the resultant thickness will be only a small proportion of that required for a mass wall.

This steel frame grillage may be made use of in the course of excavation by using a specially designed steel strut, cleated to the vertical steelwork and having a base-plate and abutment against the base concrete of stanchions carrying main walls, when this is possible. Then we may find ourselves once more in the ideal position of having a practically self-supporting retaining wall and the block digging may be attacked in the quickest manner, this being as child's play compared with the other.

The steam loco cranes, which still remain the most economical machines for this work, may be kept busy, and, although in London the condition of the ground does not lend itself easily, we can occasionally make use of the latest types of steam navvy or grabs with which our excavation contractors are well equipped.

Sometimes it is not practicable to use a loco crane, and, instead, a hoist of the lift type is rigged, tip wagons running on tracks of narrow-gauge being run into the cage of the hoist and raised to the top of a loading gantry before being tipped over a shoot delivering into lorries standing under.

An entirely different method of excavation is used on a site where piling is required. Piles may be driven at intervals and linked up with sheet piling as for wharf work, and the earth excavated from between. For ordinary work the piles, consisting of rolled steel joist sections, may be driven at regular distances apart, then excavation put in hand, and, as earth is removed, section by section, concrete slabs (reinforced if required) may be placed between the flanges, forming an outer skin and displacing poling boards and walings, thus saving the expense of striking timbering when the wall is being built. Very little shoring or strutting is required to keep this system in position.

It is essential that at completion of underground works the surrounding earth shall be just as solid as before being disturbed, and to this end all timber should be carefully withdrawn and all cavities filled solid. When using concrete slab fillings in place of planking and strutting, they may be cast with holes through them by means of which, after being fixed and pointed, they have all voids behind them, filled solid with Portland cement forced in under pneumatic pressure.

When excavating sites of old works premises, the foundations of heavy walls or engine beds and machine bases call for special attention. The pneumatic drill assists us here again, and in some instances it is possible to use a mild charge of special explosive to split up blocks of concrete.

Water-logged sites call for extra care, and possibly a different type of planking and strutting. One method of treating an isolated base through strata carrying water or running sand is shown by figure two. The timber sheet piling, about 9 ins. by 2 ins., is driven inch by inch as the soil is raked out from the bottom, each board being driven in turn around the pit, leaving no surface of soil exposed, and each being tightened up by means of wedges against temporary walings. This

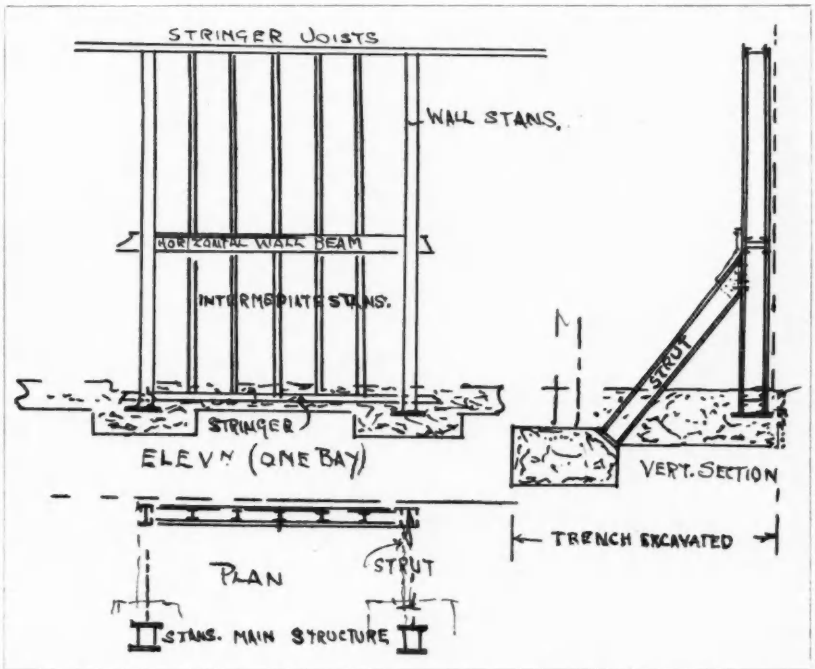


Figure one. Steel grillage system, designed to take most of the thrust of retaining wall, thus economizing in material and space, and lightening the load on the foundations.

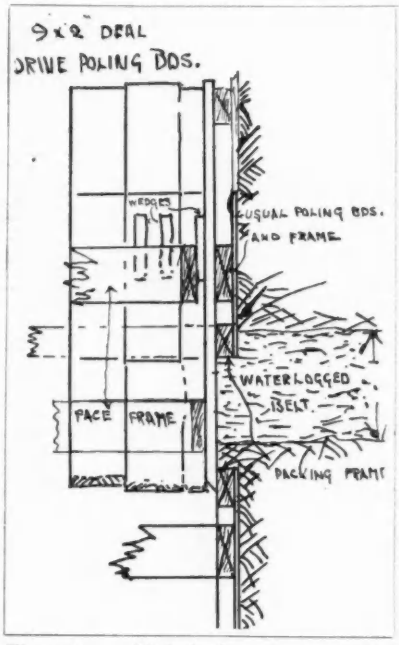


Figure two. Method of treating an isolated base, where water-bearing strata or running sand are encountered.

process is repeated until solid ground is reached when we may revert to ordinary framing again.

In timbering for excavation particular care should be taken to ensure that the timber is fit for its purpose. Struts taking heavy loads should always be of pitch pine, and cut ends should always have full bearing. Each set of framing should be laced to the set above and below as they are fixed. In dry weather the timbering should be tested daily for shrinkage and tightened up if required.

Pulverized Fuel for Central Heating

BY ALEXANDER H. HAYES

MODERN power stations have shown so definitely the value of pulverized-fuel firing, and the system has made such distinct progress, that an almost inevitable suggestion is that central heating offers another wide field for its application.

Unquestionably there are openings for pulverized-fuel firing in central heating, so far as large installations are concerned, and various plants of the sort have already been installed and operated in America. In those cases the pulverized fuel is delivered, already prepared, by suitable wagons, and the user is only then concerned with the firing problem as distinct from the drying and grinding.

Before, however, an opinion can be formed upon the applicability of pulverized fuel for central heating work generally, it is necessary to inquire what are the advantages of the system which have brought it into prominence. Briefly, these may be summarized as follows: The possibility of burning almost any grade of coal, even with very high ash content; practically perfect combustion of the fuel, given proper regulation of the fuel and air supply, and a suitable combustion chamber; rapidity with which full combustion conditions can be attained in the furnace; and flexibility in regard to increase or decrease in the rate of firing; increased efficiency giving an economy up to say 10 per cent.

In order to attain these advantages, the coal must be ground to a fine powder, in which condition it can be air-borne to the furnace; and in some cases, drying of the coal for the removal of surplus moisture is necessary in order to allow of satisfactory grinding. It will be evident that in many cases the necessity of having to instal and operate grinding equipment, except where very large quantities of fuel are being used, offsets the advantages of the process unless a regular supply of fuel already prepared can be obtained. The absence of such a supply in Great Britain is, even in the absence of any other consideration, at the moment a deterrent to general application.

The adoption of the process would in most cases involve installing a special type of furnace and boiler, also motor and blower equipment for supplying the fuel and air to the furnace. These considerations, however, cannot be put forward as objections in the case of new installations.

Reverting for a moment to the types of boiler and furnace usually adopted for central heating, it should be borne in mind that the low efficiency of these plants, compared with that of the central power-station and better industrial plants, is due not so much to bad combustion as to bad boiler construction for the maximum heat transfer. Admittedly there is greater liability of inefficient combustion, owing to the usually intermittent nature of the stoking and the absence of any fine control of air supply and rate of combustion. These latter factors account for a definite proportion of the loss of potential heat. A large proportion of heat, however, inevitably escapes with the products of combustion, and this is more easily appreciated when it is recalled that even in a modern power station the amount of heat absorbed by the boiler, as distinct from the superheater and economizer (which do not form part of the central-heating plant), is frequently little more than 70 per cent. of the total heat generated.

It is evident, then, that even with perfect combustion of the fuel the efficiency of the usual type of central-heating boiler cannot be brought very much above the figure which good practice already secures with solid fuel. Assuming, however, that compact and efficient types of boilers and furnaces for pulverized-fuel firing were available, the remaining problems would be the supply of the fuel and the disposal of the ashes.

A rational supply of powdered fuel should essentially have as its basis a price related to the calorific value of the fuel, and in such cases it is not likely that fuels with very high ash content would be considered economical for transport over long distances. Fuels of 20 per cent. to 25 per cent. ash content would necessarily find their market near the collieries, while distant markets, such as London, would be supplied with a better grade fuel, probably not exceeding 10 per cent. This ash, however, does represent a residue which would require to be removed regularly and be disposed of suitably. Here it may be mentioned that the disposal of the ash dust from pulverized fuel is not so simple as of that from solid fuel.

It will be seen that there are various technical problems involved in the general adoption of pulverized fuel for central heating, and, while none of the difficulties is insuperable, their proper solution must be a matter of time. In regard to the fuel supply, various difficulties which have been raised from time to time, such as the classification of pulverized fuel as dangerous material for transport, no longer apply. The transport question merely involves the supply of suitable wagons constructed for pulverized fuel and supplementary conveyances for road transport and local delivery.

Collieries, however, do not yet seem to have awakened to the desirability of putting on to the market regular supplies of prepared fuel. Of late years much has been done in the washing and separation of small-grade coal which was at one time treated almost as waste, and it is found that this fuel has a ready and profitable market. The process might be extended considerably, for centralization of coal preparation and grinding is unquestionably the most economical procedure. The power required for this work can readily be generated at the pit head from fuel which does not justify transport charges.

Some such process of preparation and general distribution of pulverized coal is the first essential in the adoption of that fuel for general use, and the only explanation for the absence of such a supply which we can offer is the relative newness in this country of pulverized-fuel firing, and a spirit of inertia amongst those who are best in a position to initiate the scheme.

SETTINGS FOR GAS FIRES

DESIGNED BY E. MAXWELL FRY



Study mantelpiece of marble, with cast-iron fire-grate, before alteration. Typical Victorian equipment of this kind existed in the main rooms of the house from which examples are here illustrated and described. The photograph reproduced below shows its appearance after the reconstruction had been carried out, with simple and inexpensive materials.



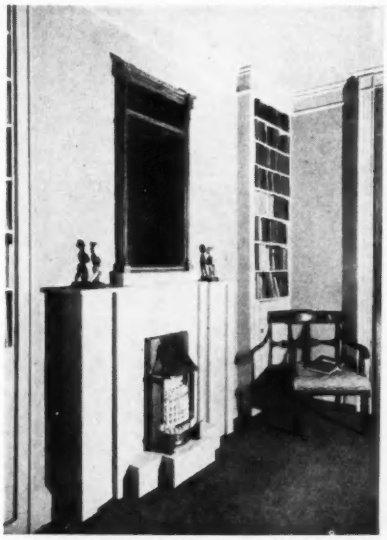
The dining-room gas-fire setting, after remodelling. As in the case of the study, illustrated below, the fire has been raised well above floor level.

THE adaptation of existing fireplaces and grates to the uses of gas is a universal and melancholy practice that has only economy to commend it. Wherever it is *intended* to use gas for heating and a scheme of decoration is involved, the gas fire surely merits the expense of a few pounds so that it may be of a piece with the decorations instead of sitting, cuckoo-like, in a setting of other days' devising.

The psychology of the gas fire is not at once clear. Like the open fire, it is a thing to gather round, in nearly any room an obvious centre of attraction, and therefore a means of orientation; it cannot be regarded as a radiator. On the other hand, its fixed radiants and steady burning make a wide hearth unnecessary. There are no fire-irons and no ashes or coals to be kept within a curb or fender.

The gas fire is something therefore between the old open fire and the new radiator. Its one very obvious merit, insufficiently realized, is its extreme adaptability within a wide range of architectural forms that are NOT resuscitations of what are known as "period" designs.

The gas fire, for instance, is not chained to the floor. It may be raised to any height desired, as in the examples illustrated, that is obviously suited to fireside reading and conversation. Again, it may be moved forward or backward, and is better brought forward, as the old fire was of necessity better recessed. Nor does it require the heavy materials of the traditional fireplace, since it is designed for its heat to be thrown forward, and not to spread sideways and backwards.



In the study the scheme embraces bookshelves, and seemly mouldings have been superimposed on the old mantelpiece.

Rational gas fires are thus to be built of wood, asbestos sheeting, glass and metal; marble, brick and stone become luxuries.

At the moment the various firms manufacturing gas fires are still obsessed by period designs. Their most up-to-date patterns preserve a projecting hood and fender. A very few patterns with a plain, hoodless surround are available, and these are most easily incorporated within an architectural setting; but as few architects seem to want to use the gas fire in any but a stilted manner, these excellent patterns are little called for.

Were gas-fire design properly understood, it would be along the lines pointed by these patterns that advance would be made.

The January issue of THE ARCHITECTURAL REVIEW *will be a special number devoted exclusively to the City of New Delhi, India, planned and designed by Sir Edwin Lutyens, R.A., and Sir Herbert Baker, A.R.A., F.R.I.B.A. This issue will be published at the usual price of 2s. 6d.*

LITERATURE

THE TERRORS OF THE LAW

A LITTLE law, like a little learning, is a dangerous thing; but for the architect a little law is a necessity for lack of which he will be unable to take a firm position in the issues that daily present themselves; will lose ground to the weakening of his confidence in himself, his authority with others, and to the detriment of his clients' interests; and will before long certainly find himself involved in great disasters or in small ones.

Although the interpretation of niceties of law often confounds the experts and divides the judges, the idea that the law is a mysterious and terrible thing is quite a wrong one; in the main, and as it presents itself to the practising architect, it clarifies perplexities and makes difficult travelling safe and easy.

The law is so much the quintessence of logic that a well-assimilated notion of its main tenets and leading principles enables the architect to develop a kind of instinct which serves to interpret facts and guide his actions rightly and unassailably. It is this assimilated knowledge, or instinctive sense of legal values, which is the basis of a good, working, practical acquaintance with the law; but the legal text-book is slow to yield that general sense of the whole subject which is the first step to assimilated knowledge. The inquirer needs a comprehensive view of the wood before he examines the individual trees composing it; and it is the special merit of the little book now under review that it informs the reader's mind in just that way.

The book is a revised edition of *Smith's Owner, Builder and Architect*, as it is, in brief, named. It lays no claim to be a legal text-book, but is designed to guide the lay public; and those of the lay public who are entering on the practice of architecture will be excellently served by it. The picture it presents gains cogency from the arrangement of the matter in sections following the successive stages of the business of erecting a building, from considerations bearing on the drawing of contracts to those involved by a recourse to arbitration.

The work also gains much from the liveliness and lucidity of the writing and from the intimacy of its examples and illustrative instances with the facts of building operations. This last is no doubt the contribution of Mr. W. Palmer-Jones, whose services are acknowledged in the preface.

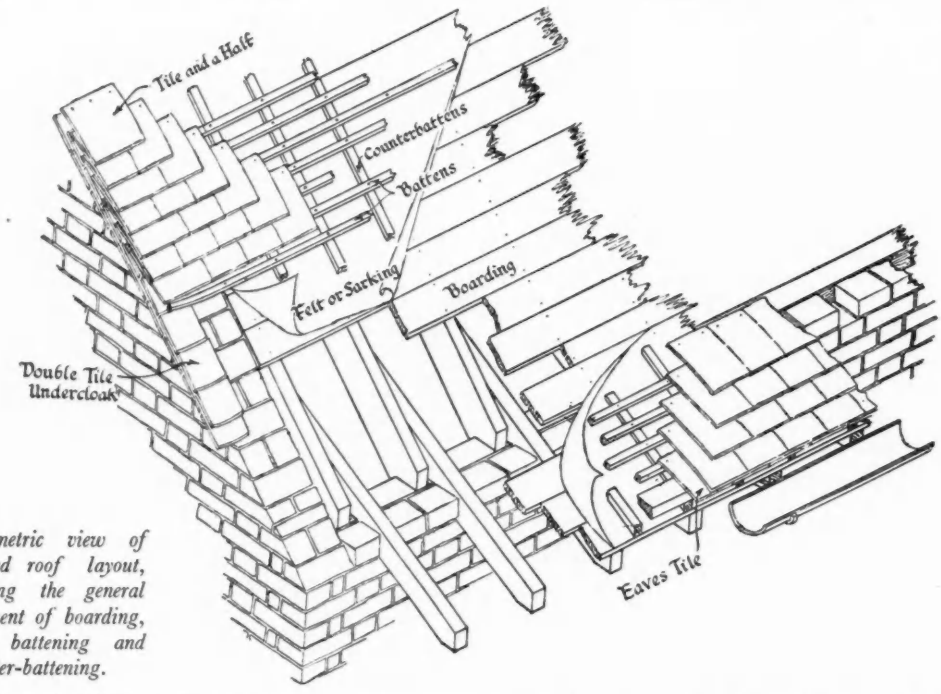
The book closes with the author's personal endorsement of the high opinion of architects expressed, in a reported case, by the late Lord Bramwell; and with an appreciation of the services rendered by architects. This would be conclusive, were other evidence lacking, that the author and his editor know well what they are talking about. Mr. T. Algernon Brown has well spent the time he has given to the revision and completion of an excellent little book. H. B. C.

The Law Concerning Owner, Builder and Architect. By James Walter Smith. Second edition revised by T. Algernon Brown. London: Effingham Wilson.

BUILDERS' MATERIALS

IN the preface to this most useful book the author very rightly draws attention to the scarcity of works on building materials which deal with the subject on other than strictly scientific lines. Indeed, for close on forty years previous to Mr. Grundy's present contribution to the literature of building technology, Rivington's *Notes on Building Construction: Vol. IV., Materials* (published in 1892), and Middleton's *Building Materials*, which appeared in 1905, have stood almost alone as comprehensive sources of information for the general enlightenment of the profession.

The subject is really so vast that for years past there has been a tendency on the part of specialist writers to devote themselves to a particular material, or group of materials, and this has led to the publication of numerous separate treatises such as Searles' *Cement, Concrete and Bricks*, Seymour Jennings' *Commercial Paints and Painting*, Blake's *Roof Coverings*, Danby's *Natural Rock Asphalts and Bitumens*, and other works of similar character.



An isometric view of a pitched roof layout, illustrating the general arrangement of boarding, felting, battening and counter-battening.

From Builders' Materials.] [*By R. F. B. Grundy.*

In the circumstances, Mr. Grundy's compact little volume—planned as it is on an eminently practical basis—is most opportune, and although it comprises but 240 pages, we are given a most excellent survey of the subject. As such, there can be small doubt but that the work now under review will be cordially welcomed both by the busy architect and the examination-haunted student.

The book contains twenty-one chapters, of which three are devoted to stone; two each to timber, brick, lime and plaster, Portland and other cements, and iron and steel; while single chapters are given to earthenware (including stoneware and terra-cotta), non-ferrous metals, concrete (mass and reinforced), bitumen (together with asphalt and tar), glass, roofing materials, and paint (comprising also varnish, distemper, etc.). The final chapter is reserved for certain miscellaneous materials—such as abrasives, asbestos and wall-papers—which cannot be classified under the foregoing categories. Besides some ninety or so illustrations—not all of uniform merit—this text-book embodies concise references to processes of manufacture, a number of tables setting forth the dimensions, strengths and weights of specific materials, valuable data relating to tests, and much other technical information of a pertinent kind. There are also extracts from the British Standard Specifications No. 12 (1925): Portland Cement; No. 15 (1930): Structural Steel for Bridges and General Building Construction; and No. 65 (1914): Salt-glazed Ware Pipes. The index might usefully be extended in a future edition.

For the very sound reason that a more intelligent knowledge of building materials is likely to be obtained if an account of their physical characteristics is accompanied by an explanation of their uses, the author has added, where it seemed wise to do so, some particulars and diagrams bearing upon their general application. These elucidations should prove of great assistance to younger readers.

In a work of this description one naturally looks for information on the many new materials which are now available for use in modern building construction. In this connection it is satisfactory to find that such representative examples as stainless and non-corrosive steel, white Portland and rapid-hardening cements—the latter including the aluminous and Portland varieties—as well as ultra-violet ray transmitting glass, all receive due mention. In the matter of Lafarge Extra-White cement, however, which is referred to on page 152, the writer of this notice suggests that it is hardly accurate to describe it as a Portland cement. The manufacturers, it will be found, do not make this claim.

Taken as a whole, the book is remarkably comprehensive, and the wide range of facts, which the author has assembled within such narrow limits, is eloquent testimony of his ordered discrimination.

FREDERICK CHATTERTON

Builders' Materials. By R. F. Grundy. London: Longmans, Green and Co. Price 5s. net.

Publications Received

Catalogue of English Furniture and Woodwork. Vol. II.—Late Tudor and Early Stuart. London: Victoria and Albert Museum: Department of Woodwork. Price 2s. 6d. net.

Building Science Abstracts. Vol. II. (New Series.) No. 10. October, 1930. Abstracts, Nos. 1854–2038. Department of Scientific and Industrial Research. London: H.M. Stationery Office. Price 9d. net.

The Gates of Life. By B. Irwin. London: Rider & Co. Price 7s. 6d. net.

Gothic Wanderings in Somerset. By Freda Derrick. London: Barnicott and Pearse. Price 15s. net.

Royal Homes Near London. By Benten Fletcher. London: The Bodley Head. Price 21s. net.

Sussex Notes and Queries. Quarterly Journal of the Sussex Archæological Society. Published by the Society at Barbican House, Lewes.

Steel Structures Research: Verbatim Proceedings of the Conference. Department of Scientific and Industrial Research. London: H.M. Stationery Office. Price 1s. net.

Roadside Trees. London: The Automobile Association and the Roads Beautifying Association.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Art Treasures (Overseas Loans) Bill

IN the House of Lords, Lord Parmoor moved the second reading of the British Museum and National Gallery (Overseas Loans) Bill, which carries out the report of the Royal Commission appointed in July, 1927, presided over by Lord D'Abernon, which unanimously recommended that the Trustees of the British Museum and the National Gallery should be empowered to lend objects of art and pictures for exhibition in places outside Great Britain.

It was important, he said, that the British position in the world of art should be better understood abroad. The Royal Commission had fully considered the risk of damage to the objects of art, and had reported that there was no evidence of damage of any real and lasting character having been done to pictures sent abroad under careful supervision. If there was risk, the risk would apply equally to pictures or objects of art painted or made by English artists as to those of foreign artists which were now located in England. It was a striking fact that, in our late international exhibitions, pictures or objects of art numbering over 100 had been sent to this country from eleven countries which were not the product of the art or artists of the countries concerned.

Lord Hanworth moved the rejection of the Bill. As Master of the Rolls, he said, he was charged with the superintendence of the archives of the nation. He had also been authorized by the Standing Committee of the Trustees of the British Museum to oppose the Bill. Although it had been pointed out to the Government that only two or three words were necessary to make the Bill satisfactory to the Museum Trustees, two months had passed without any assurance being forthcoming. For the purpose of reciprocity, the Trustees were willing to let the Bill go through if the objects to be lent were limited to "objects representative of British art and crafts."

Lord Crawford, who supported Lord Hanworth, said that it was commonly held that, in view of the wonderful generosity shown to us by foreign countries, we must reciprocate by sending our pictures abroad. But informed foreign opinion was by no means so friendly to those international exhibitions. Responsible custodians of national collections in several Continental countries were anxious that this country should take upon itself the responsibility of putting a check on these international exhibitions. Custodians of works of art were horrified last winter when they learned that the *Leonardo da Vinci*, with its precious cargo, was encountering heavy seas on her way to this country. Happily, the ship arrived and returned safely, but he could never be a party to encouraging any other nation to take those risks. He did not think the proper compliment to pay to Italy or other countries was to lend them examples of their own art, but rather to send them examples illustrating British artistic supremacy from 1760 to the death of Turner.

Eventually, after further criticism of the Bill, the debate was adjourned, Lord Hailsham warning the Government that if, when the debate was resumed, they were not able to meet the objections that had been raised, the second reading of the Bill would not be agreed to.

Housing and the Unemployed

Housing in relation to unemployment was discussed at some length last week in the Commons. It was opened by a Liberal member, Sir Tudor Walters, who said that 143,731 persons in the building trade were unemployed. Those men could build 100,000 houses in twelve months, and another 100,000 men could be employed for the provision of material. If the Government would set to work now and build 100,000 houses, 250,000 of the unemployed would be given work. If to that were added the saving that would accrue in unemployment benefit, they would let the 100,000 houses at an economic rent. There were hundreds of architects and surveyors out of work who would tackle a scheme like that, and would not take many weeks to do it. If he had the job of building 100,000 houses, and no one to interfere with him and no officials to say a word, he would have the houses up in less time than it took to make a report about the matter. What was needed was to get on with the job. He would also like to see some Department of the State undertaking the building of 100,000 houses for the agricultural labourers. That would add another 100,000 to the people who could be employed on housing, making 350,000 in all. A national regional planning committee should also be set up at once to survey sites and make plans for future development.

Mr. Morrison, the Minister of Transport, said that the Government had thought that the proper course to adopt was to set up a body composed of recognized experts in the main classes of works which arose under town planning, as, for instance, roads, garden cities, satellite towns, general public works, and valuation, together with some leading representative men in local government. It was not proposed that State officials or politicians, as such, should serve on the committee. It would be rather of a technical and expert character. The Government proposed to attach to this committee as assessors expert representatives of the Government Departments concerned. The terms of reference to the committee, which the Government proposed to set up immediately, would be: To consider the reports issued by the regional planning committees—many of which were, of course, in existence or in process of being set up under existing legislation — and to recommend (*a*) what schemes of work could be put in hand with due regard to the return to the community from the expenditure incurred, the need of pressing forward with the work as expeditiously as possible and of avoiding the delay of other works now being, or shortly to be, executed; and (*b*) what measures should be taken to secure that the works should be speedily carried out, with an estimate of the probable cost of the several schemes, the economic return, and the amount of employment likely to be afforded by them. Immediately that report was received, elements of considerable policy would obviously arise which they would all have to consider and on which the Government would come to the necessary conclusions. Immediate steps were being taken to appoint the committee and get it actively at work, although he could not give the names at present.

Mr. Greenwood, the Minister of Health, said that he differed fundamentally from the view that one of the real ways to deal with unemployment was a centralized housing policy. They could not, after building up the local authorities, take from them one of the big powers they possessed. This country had done more to deal with the housing situation since the war than any other country, and he would not agree to some new monopolistic enterprise that was going to override the local democratic institutions.

LAW REPORT

WHAT IS REASONABLE TIME FOR CARRYING OUT A CONTRACT?

S. Haskins and Bros., Ltd. v. *Leverett, Kearton & Co., Ltd. and J. M. Sheppard. Official Referee's Court. Before Sir William Hansell, K.C.*

THIS case had reference to the disputed value of building and decorative work, and there was a counterclaim for damages for delay.

The facts appear fully in the judgment of the local official referee.

Sir William Hansell said the case raised many important points on which there was a very complete difference in the evidence given on behalf of the plaintiffs and the defendants. The plaintiffs, Samuel Haskins and Bros., Ltd., were the well-known firm of shopfitters, and the defendants were a large firm of motor dealers. The plaintiffs' claim was for work done by the plaintiffs as shopfitters for the defendants, Kearton & Co., Ltd., at Dering Street, W., premises to be used as showrooms for cars. The order for the work was not given the plaintiffs till the middle of April, 1928. After the work had been commenced a considerable amount of extra work was ordered by the defendants, acting through their agent and architect, Mr. Sheppard.

The first question was upon what terms was the extra work done by the plaintiffs. Defendants alleged that the work was to be finished by May 1, or finished as to the ground floor or as to the shop front, and, further, the plaintiffs were to use their best endeavours to finish the work by that date, or within a reasonable time as urgent work. The real question appeared to the local referee to be whether there was any time limit set for the plaintiffs, during which they contracted to finish the work, including the extras. He was clearly of opinion that the only time limit was that the plaintiffs agreed to put in the shop front by May 1. With regard to that they were three or four days late. As to the rest of the work the contract was to be finished within a reasonable time, and he thought the plaintiffs did not know that it was a matter of considerable importance to the defendants for them to get in as soon after May 1 as was reasonably possible. The work finished on June 15. He found as a fact that eight weeks was, in all the circumstances, a reasonable time in which the plaintiffs could finish the work. There was, however, a great deal of extra work with regard to decorations, and there was the fact that the premises were also occupied by the builders. He accepted the view that eight weeks was not an unreasonable time for the plaintiffs to have taken in which to complete the work, and he so found. Therefore there was no breach of the contract to complete the work in a reasonable time. He knew there was some slight adjustment and possibly little alterations here and there after June 15, but that was not substantial and therefore, as far as the ground floor was concerned, he found there was no unreasonable time occupied.

If the plaintiffs had performed their contract, what were they entitled to be paid? Mr. Hider, an architect of great experience (and he was confirmed by Mr. Leslie, another experienced architect), had given figures, and the official referee accepted his view as to the fairness of the figures which he had put down. Mr. McMinn, the architect for the defendants, put the amount at a much lower figure. On the whole he accepted Mr. Hider's account, as he had worked it out and given the prices for everything, and the amount due on this part of the case came to £235 odd, which included an addition of 25 per cent. for profit, overheads, insurance and such-like things.

The official referee said he had carefully considered the question as to whether that was a reasonable amount on this account, but he could not bring himself to think that 25 per cent.

was a reasonable amount. Having regard to all the circumstances, he thought that 20 per cent. was a sufficient amount, and he therefore deducted 5 per cent. from the amount of Mr. Hider's total. There were one or two small deductions to be made, which left the sum of £214 8s. 9d. as being due to the plaintiffs.

There was a further claim for £92 odd in respect of special work, and he held that that was recoverable, which made a total of £306 18s. 9d. due to plaintiffs on the claim.

There was a counter-claim for damages for delay, and on this head it was for the defendants to satisfy him that the time expended over this contract was unreasonable. Defendants had failed to prove anything of the sort. Plaintiffs had satisfied him that the time they took was, in all the circumstances, reasonable. The counter-claim therefore failed.

In case he were wrong in his construction of the contract, or breach by the plaintiffs to do the work in a reasonable time, he assessed the damage, if it were recoverable, at £43 14s. 6d.

Defendants claimed £300 for loss of profit for the six weeks during which they were deprived of the use of the ground floor at Dering Street. He was of opinion that the defendants had failed to prove that any loss of profit arose from the assumed delay on the part of the plaintiffs, as he thought that they had user from May 4, and, if not, certainly from May 9 onwards.

He entered judgment for the plaintiffs for £306 odd on the claim, with costs. There would be judgment for the plaintiffs on the counter-claim, with costs, and there would be an order that the plaintiffs pay the defendant Sheppard his costs down to the time of discontinuance.

Mr. Graham Mould and Mr. Graham Brooks (instructed by Messrs. Darling and Taylor) appeared for the plaintiffs, and Mr. C. M. Mitchison (instructed by Messrs. Richardson, Sadler & Co.) for the defendants.

Plaintiffs' experts were Mr. E. J. W. Hider, F.A.I., B.A., and Mr. H. G. Leslie, and the defendants' Mr. J. M. Sheppard, F.R.I.B.A., and Mr. H. A. McMinn, F.S.I.

SOCIETIES AND INSTITUTIONS

DARCY BRADDELL ON MECHANISM

THE pros and cons of "Mechanism" were discussed by Mr. Darcy Braddell, F.R.I.B.A., lecturing at a meeting of the Liverpool Architectural Society.

He said the shadow of a revolution in house building was beginning to spread over the land. There would be many vested interests, notably those of the Bond Street decorators, that would fight it to the bitter end, because the sale of "antiques" was not encouraged by the disciples of "Mechanism." On the other hand, young men born to a worship of mechanics would support the new style, because they saw in it something that was in harmony with the life they wanted and intended to lead.

The lecturer thought that "Mechanism" in its present form was too inhuman and graceless to last, but none the less very important, because it made those brought up in the belief that the English tradition could never die look to their creed and wonder. Its main fault lay in that it was too brutally logical, and did not take into account that the present mode of life, ideas, and ideals were still those of mankind and not robots, that grace and elegance were still wanted. Here, perhaps, the group that lay between the die-hard traditionalist and copyist and the mildly enthusiastic mechanist might prove useful in the formation of a new style.

Today we had the birth of "Mechanism," because the world, particularly the young world, was passionately interested in mechanics.

MANCHESTER ARCHITECTS' ANNUAL DINNER

The annual dinner of the Manchester Society of Architects was held in the Masonic Temple, Manchester, on December 12.

Mr. J. Theo. Halliday, F.R.I.B.A., who presided, proposing the toast of the "R.I.B.A.," said it was the work of town-planners to keep civilization tidy. Referring to Wythenshawe, he stated that they were anxious that it should not be another Kingsway. They as architects had placed their services at the disposal of the Corporation in the hope that in some way they might stave off such a fate from that very beautiful piece of Cheshire. Architects could help a great deal, and they hoped that in the future speculative buildings would not be in the nature of a blot on our suburbs.

Dr. Raymond Unwin, F.R.I.B.A., in responding, said there was going to be a great field of practical work for architects to cover in the next few years. They had to see that the great quality of design was added to the large section of building work in this country which, at present, was going along without design. Materials were merely being put together without relationship or proportion one to the other, and they had no effect beyond a corrupting effect upon the public. If this continued, they would not be able to keep that sense of unity of purpose between the public and those who were building, which was essential if they were to make architecture a great art.

Prof. Patrick Abercrombie, F.R.I.B.A., said the great schemes of slum clearance would give them opportunities of adding beauty to their towns, but it was essential that they should have cleaner atmospheres.

The Lord Mayor of Manchester (Alderman Titt) remarked that, while Manchester's commercial buildings would compare with any that were going up in other parts of the country, he did not want to see the city looking like New York.

SCHOOL ARCHITECTURE IN DERBYSHIRE

At a meeting of the Sheffield, South Yorkshire and District Society of Architects and Surveyors, Mr. G. H. Widdows, F.R.I.B.A. (Architect to the Derby Education Committee), lectured on "Modern School Buildings."

Mr. Widdows said his remarks would be confined to school architecture in Derbyshire, but he paid tribute to the fact that modern school planning received its impetus from Dr. George Read, of Staffs., after the passing of the 1902 Act. The speaker pointed out that at the time of the passing of the 1870 Act, schools were of simple character and were either rectangular in plan or T- or L-shaped. Afterwards, these buildings were added to, as the need for increased accommodation arose, in such a way that there was no chance of through ventilation owing to the way the additions were made. After this came the central hall type of school, which, prior to the 1902 Act and for some time afterwards, was the standard school adopted by a large number of education authorities. In this type the rooms ventilated into the central hall, with the result that the foul air from one set of classrooms could be blown across the hall and enter the rooms on the other side.

After 1902, when the present education system took its birth, school hygiene received due consideration. It was then decided that if classrooms were to be healthy, two outside walls should be open to the fresh air to secure proper ventilation, leaving the wind as the ventilating force. By adopting these principles, various arrangements of planning could be obtained and the grouping of classrooms round a courtyard was much to be preferred. The quadrangle should be laid out with flowers, grass and shrubs, and could be made interesting by the provision of fish ponds, sunken gardens, sun dials, and the like.

The main factors in modern school-planning centred round ventilation, lighting and heating, and the speaker

went on to describe the use of doors and windows and the type most suitable to ensure adequate ventilation. In the matter of lighting, the best method was to have a continuous skylighting along the north, as this ensured adequate lighting and removed any chance of glare. If dormers were used on the south side, they should not be large, otherwise the beneficial effect of the north light would be lost.

The speaker next described the method of heating adopted in the open-air schools, and gave reasons for warming the floors in preference to other methods of heating. Slides were shown illustrating the layout of buildings and the grounds, and the interior arrangements of the halls, laboratories, etc.; slides were also shown of the furniture now in use in Derbyshire schools.

MALTESE ARCHITECTURE

"Maltese Architecture" was the title of a lecture by Professor L. P. Abercrombie, given at a meeting of the Sheffield, South Yorkshire and District Society of Architects and Surveyors, held at Sheffield University.

The lecturer, commenting on the number of fine buildings in Malta, said there was an indefinable impetus towards the creation of fine architecture, and that impetus had grown up from the time of the Knights of St. John and continued to modern days. He believed that one of the reasons was the existence on the island of an extremely fine building stone, but there were other factors, which he explained during his lecture.

R.I.B.A. COUNCIL MEETING

Following are some notes from a recent meeting of the R.I.B.A. Council.

Ralph Knott Memorial Fund: On the recommendation of the Board of Architectural Education it was agreed to accept the proposal of the Architectural Association that the R.I.B.A. Maintenance Scholarships Committee should undertake the nomination of a recipient of the Ralph Knott Memorial Scholarship each year.

Examination for the R.I.B.A. Diploma in Town Planning: The Board of Architectural Education reported that Mr. J. M. Fraser had passed the Examination for the R.I.B.A. Diploma in Town Planning. It was resolved to award the Diploma to Mr. Fraser.

The Architects' Benevolent Society: At the invitation of the Council of the Architects' Benevolent Society it was agreed that the R.I.B.A. should be nominated as a trustee of the Society.

The Library Association: On the recommendation of the Literature Standing Committee it was agreed that the R.I.B.A. should join the Library Association as a corporation.

The Fellowship: The Council, by a unanimous vote, elected Lt.-Col. P. A. Hopkins to the Fellowship under the powers defined in the Supplemental Charter of 1925.

Election of Students: The following Probationers were elected as students of the R.I.B.A.:

Denison, T. E. T. (Leeds College of Art).
de Wet, R. L. (University of London).
Farrow, J. W. (Architectural Association).
Franks, R. H. (Northern Polytechnic).
Jackson, R. J. L. (Liverpool School of Architecture).
Johnson, F. F. (Leeds College of Art).
Lingwood, P. (Leeds College of Art).
Lloyd, M. E. (Birmingham School of Architecture).
Maw, Z. T. (Architectural Association).
Mayo, M. I. (Liverpool School of Architecture).
Naude, D. F. H. (Liverpool School of Architecture).
Rogers, V. W. (Liverpool School of Architecture).
Sarjeant, J. K. G. (University of London).
Seel, E. (Leeds College of Art).
Spence, C. C. (Armstrong College, Newcastle-on-Tyne).
Stammers, C. S. (Liverpool School of Architecture).
Wise, A. G. (University of London).

ARCHITECTS AND BUILDERS' LUNCHEON

A joint luncheon of members of the South-Eastern Counties Society of Architects, the R.I.B.A. and the Southern Counties Federation of Master Builders was held at the County Hotel, Canterbury, recently.

Councillor A. W. Larkin, replying to the toast, "Prosperity to the Building Industry," proposed by Mr. H. C. Ashenden, considered that such meetings were useful functions in enabling the architects and builders to meet together and have a cross-table talk about those matters which affected the industry; for too long they had been isolated in their own particular parts instead of being one concrete whole. He believed that, generally speaking, the relations between architects and builders were quite good. He was exceedingly glad that overtures had taken place between the two bodies as a result, in the first place, of the architects sending them specimen copies of their year book, in which were starred members of the Federation who, he suggested, should be looked upon as hall-marked men, worth considering as qualified to carry out their work.

Other speakers included Messrs. Cannon, R. G. Lovell and R. H. Stevens. A paper on "Architects—Award and Agency," was read by Major Watson.

INSTITUTION OF STRUCTURAL ENGINEERS

The seventh annual dinner of the Lancashire and Cheshire branch of the Institution of Structural Engineers was held recently at the Grand Hotel, Manchester. Mr. J. H. Jameson presided.

The Lord Mayor of Manchester (Alderman G. F. Titt), in proposing the toast of "The Institution of Structural Engineers," said that some people would say that modern buildings of steel and concrete were not so beautiful as the old, but in the last few years he had seen many of these new buildings which he considered were quite as beautiful, besides being more useful.

Mr. R. H. H. Stanger, A.M.INST.C.E., in his response, said that the great question which was now occupying the minds of structural engineers was the revision of building bylaws. He was quite sure they would have the cordial co-operation of all municipalities who had building bylaws.

A STUDENTS' COMPETITION

A students' competition has been arranged by the West Essex Chapter of the Essex, Cambridge and Hertfordshire Society of Architects, open to all architectural students, not over twenty-one years of age, resident or employed in the Chapter's area. Prizes of two guineas, one guinea and half a guinea will be awarded for the best efforts, assessed by the Executive Committee of the Chapter.

It is hoped, should the work submitted be of sufficient merit, that an exhibition of the drawings will be arranged for and a criticism given by the assessors.

The subject set will be a small detached house, cost not exceeding £1,200 exclusive of land.

Particulars of the competition are obtainable on application to Mr. Arthur C. Russell, L.R.I.B.A., Hon. Secretary, "Cleadon," Great Nelmes, Hornchurch, Essex.

REGIONAL PLANNING COMMITTEE

Sir Banister Fletcher, P.R.I.B.A., has been appointed to represent the City Corporation, of which he is a member, on the Greater London Regional Planning Committee.

TWO NEW BRIDGES

At a meeting of the Newcastle and District Association of the Institution of Civil Engineers, papers were discussed on the New Tyne Bridge at Newcastle, by David Anderson, B.SC., M.INST.C.E., and on the New Wearmouth Bridge, Sunderland, by G. L. Groves, B.SC., M.INST.C.E.

The papers described the design and construction of the two bridges, and dealt fully with the ingenious methods of erection adopted in each case. A large number of slides illustrative of the progress of the two works was exhibited.

Mr. Albert Saville Buckley, of Chorley, architect and surveyor, left £8,700 (net personalty £7,486).

Mr. John Alfred Cheston, M.C., F.R.I.B.A., surveyor to the Bridewell and Bethlem Royal Hospitals, left £8,236 4s. 9d. (net personalty £8,109 0s. 7d.).

THE ARCHITECTS' DIARY

WEDNESDAY, DECEMBER 24
R.I.B.A., 9 Conduit Street, W.1. Office and Library closed until December 27.
ARCHITECTURAL PRESS, 9 Queen Anne's Gate, S.W.1. Offices closed until December 29.
EXHIBITION OF MODELS OF OLD LONDON. At the Golden Cross Hotel, Strand, W.C.2. The models are the work of John B. Thorp. **2.30 p.m.**

SATURDAY, DECEMBER 27
Sunrise, 8.5 a.m. Sunset, 3.57 p.m.

MONDAY, DECEMBER 29
R.I.B.A., 9 Conduit Street, W.1. First of two Christmas Holiday Lectures on Architecture for Boys and Girls. By the Hon. H. A. Pakington, A.R.I.B.A. (Also December 31.) **3.30 p.m.**

MONDAY, JANUARY 5, 1931
R.I.B.A., 9 Conduit Street, W.1. General Meeting. Award of prizes and studentships. T. A. Darcy Braddell, F.R.I.B.A., will criticize work submitted. **8 p.m.**

TUESDAY, JANUARY 6
L.C.C. SCHOOL OF BUILDING, Ferndale Road, Brixton, S.W.4. Exhibition of work submitted by craftsmen and apprentices for the 1930 Competition organized by the National Painters and Decorators Joint Education Committee of England and Wales. 10 a.m. to 8 p.m. (Also January 7, 8, and 9.) **10 a.m.**

WEDNESDAY, JANUARY 7
LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "Cautionary Guide to Liverpool and Surrounding Country." By Clough Williams-Ellis, F.R.I.B.A. **7.30 p.m.**
INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the Engineers' Club, Albert Square, Manchester. Paper by J. Theo. Halliday, F.R.I.B.A. **7 p.m.**
INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. "Notes on the Theory of Radiant Heating." By C. G. Heys Hallett, M.A. **7 p.m.**
INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Informal Meeting. **6 p.m.**

THURSDAY, JANUARY 8
SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS. At the University, Sheffield. "Some New Buildings in Sweden and the Stockholm Exhibition." By E. R. Jarrett, A.R.I.B.A. (Tea, 5.30 p.m.) **6.15 p.m.**
INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "Thames House." By R. Travers Morgan, A.M.INST.C.E. **6.30 p.m.**

FRIDAY, JANUARY 9
INSTITUTION OF STRUCTURAL ENGINEERS. Annual Dinner to be held at the Mayfair Hotel, W.1. 6.45 for 7.15 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Some Considerations Affecting the Construction and Reconstruction of Bridges in Urban Areas." By E. R. Knight, A.M.INST.C.E. 6.30 p.m. **6.30 p.m.**

MONDAY, JANUARY 12
ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "Modern Painters." By R. Wilenski. 8 p.m. Exhibition of Examples of Modern Painting. Until January 24. **8 p.m.**
SURVEYORS' INSTITUTION, 12 Great George Street, Westminster, S.W.1. "The Restoration of St. Paul's Cathedral." By J. E. Drower, C.B.E. (Lantern illustrations.)

TUESDAY, JANUARY 13
INSTITUTION OF HEATING AND VENTILATING ENGINEERS. London and District Branch. At the Borough Polytechnic, Borough Road, Southwark, S.E.1. "Concealed Floor Heating." By John H. Francis. 7 p.m. Manchester and District Branch. At the Milton Hall, Deansgate, Manchester. "Hot-Water Heating." By R. Thorp. **7 p.m.**
INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Ordinary Meeting. **6 p.m.**

WEDNESDAY, JANUARY 14
INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. At the Metropole Hotel, Leeds. "Some Problems in the Design of Steel Framed Multiple-Story Buildings." By V. H. Lawton. **7 p.m.**
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "English Mediæval Architecture: The Pre-Mediæval Periods." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. **6 p.m.**
INSTITUTION OF ELECTRICAL ENGINEERS. Hampshire Sub-Centre. At the Municipal College, Portsmouth. Short papers will be read and discussed. **7.30 p.m.**
INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Students' Meeting. **6.30 p.m.**

THURSDAY, JANUARY 15
R.I.B.A., 9 Conduit Street, W.1. Special Meeting. "Persian Art." By Arthur Upham Hope. **5.30 p.m.**
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by J. Stuart Lewis, M.I.STRUCT.E., M.I.E.E. **7.30 p.m.**
INSTITUTION OF STRUCTURAL ENGINEERS. South Wales and Monmouthshire Branch. Visit to Aberthaw and Rhos Cement Company's Works, Rhos.

SATURDAY, JANUARY 17
Sunrise, 7.57 a.m. Sunset, 4.24 p.m.
INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. Visit to liner at Liverpool.
L.C.C. SCHOOL OF ARTS AND CRAFTS. Visit to Dorman Long & Co.'s Works, Middlesbrough. (Party limited to 90.)

MONDAY, JANUARY 19
R.I.B.A., 9 Conduit Street, W.1. General meeting. Presentation of London Architecture Medal, 1929, and medals and prizes, 1931. **8 p.m.**
INSTITUTION OF ELECTRICAL ENGINEERS. Western Centre. Annual Dinner to be held at Bristol.

TUESDAY, JANUARY 20
INSTITUTION OF ELECTRICAL ENGINEERS. North-Western Centre. Annual Dinner to be held at the Midland Hotel, Manchester.

WEDNESDAY, JANUARY 21
LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "Bridges." By G. H. Jack, F.R.I.B.A., M.INST.C.E. **7.30 p.m.**
ARTS BUILDING, University, Lime Grove, Manchester. "Treatment of the Smaller Houses." By Herbert A. Welch, F.R.I.B.A.
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "The Mediæval Period: Plans, Vaults and Buttresses." By Sir Banister Fletcher, P.R.I.B.A. **6 p.m.**
DRAWING OFFICE MATERIALS MANUFACTURERS AND DEALERS' ASSOCIATION. Annual Dinner to be held at the Hotel Victoria, Northumberland Avenue, W.C. 6.30 for 7 p.m. **6.30 p.m.**

THURSDAY, JANUARY 22
INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. Paper by Professor J. Husband, M.ENG., M.INST.C.E. **6.30 p.m.**

FRIDAY, JANUARY 23
WEST YORKSHIRE SOCIETY OF ARCHITECTS. At the Technical College, Cardiff. First of six public lectures on "Egyptian and Western Asiatic Architecture." By Norman Culley, F.R.I.B.A. **7.45 p.m.**
INSTITUTION OF STRUCTURAL ENGINEERS. Western Counties Branch. At the Merchant Venturers' Technical College, Unity Street, Bristol. "Fatigue of Metals." By M. Morgan, B.SC. 7.30 p.m. Lancashire and Cheshire Branch. At the College of Technology, Manchester. "Structural Engineering in Modern Gasworks." By A. E. Pierce, M.I.STRUCT.E. 7 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Reinforced Construction at Bournemouth Gas Works." By H. M. Hale, M.I.STRUCT.E. **6.30 p.m.**
BRISTOL SOCIETY OF ARCHITECTS. At the Berkeley Café, Queens Road, Clifton. "Architecture in Modern Germany." By F. R. Yerbury, HON.A.R.I.B.A. **5.30 p.m.**

SATURDAY, JANUARY 24
Sunrise, 7.50 a.m. Sunset, 4.36 p.m.
INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. Fifth Annual Dinner to be held at Birmingham.

MONDAY, JANUARY 26
ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "The Place of the Designer in Commerce." By R. P. Gossop. **8 p.m.**

TUESDAY, JANUARY 27
INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "Norman Architecture." By S. E. Whitaker, P.A.S.I. **7 p.m.**

WEDNESDAY, JANUARY 28
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "The Mediæval Period: Interiors, Exteriors and Openings." By Sir Banister Fletcher, P.R.I.B.A. **6 p.m.**

THURSDAY, JANUARY 29
WEST YORKSHIRE SOCIETY OF ARCHITECTS, 62 Woodhouse Lane, Leeds. Students' Debate: "That Architecture should be State Controlled." Affirmative: P. Lingwood. Negative: E. M. Rice. **7 p.m.**

MONDAY, FEBRUARY 2
R.I.B.A., 9 Conduit Street, W.1. General Meeting. "The Decoration of Buildings." By Professor W. Rothenstein, M.A. **8 p.m.**

WEDNESDAY, FEBRUARY 4
LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "Competitions." By E. Berry Webber, A.R.I.B.A. **7.30 p.m.**
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "English Mediæval Architecture: Piers, Towers, Spires and Roofs." By Sir Banister Fletcher, P.R.I.B.A. **6 p.m.**

THURSDAY, FEBRUARY 5
WEST YORKSHIRE SOCIETY OF ARCHITECTS. Bi-Annual Dinner. (Particulars will be announced later.)
INSTITUTION OF STRUCTURAL ENGINEERS. South Wales and Monmouthshire Branch. At the Institute of Engineers, Park Place, Cardiff. "Thames House." By R. Travers Morgan, A.M.INST.C.E.

TUESDAY, FEBRUARY 10
INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. At the Milton Hall, Deansgate, Manchester. "Panel Heating." By C. M. Oates. **7 p.m.**

COMPETITIONS OPEN

January 7.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.; Edward H. Fryer, and Walter Groves. Prizes: 50 guineas, 20 guineas and 10 guineas. Smaller awards may also be made on the advice of the assessors. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: January 7, 1931.

January 10.—The Bermondsey B.C. recently invited competitive designs for a proposed new medical clinic in Tower Bridge Road, S.E. Premiums: £250, £150 and £50. Designs should be submitted to E. Goff Clark, Town Clerk, Town Hall, Spa Road, Bermondsey, by January 10, 1931.

January 15.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Latest date for submission of designs: January 15, 1931.

January 31.—The Coventry Corporation invites architects to submit competitive designs for a new Hospital for Infectious Diseases. Architects competing must be established in private practice. Assessor: E. Stanley Hall, M.A., F.R.I.B.A. Premiums, £300, £200 and £100. Particulars may be obtained from Frederick Smith, Town Clerk, Council House, Coventry, until January 31. Deposit £1 1s. Latest date for submission of designs: April 30, 1931.

February 1.—The Norwich Corporation invites architects practising in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

February 12.—Messrs. Venesta, Ltd., invite practising architects and designers to submit preliminary designs for a stand at the Building Trades Exhibition at Manchester. Assessors: Messrs. Christian Barman, H. de C. Hastings, W. L. Wood, Henry Rutherford, and Professor A. E. Richardson. Premiums: 1st, £100, and £10 each to the four competitors placed next in order. Full particulars may be obtained from the Editor of THE ARCHITECTS' JOURNAL, 9 Queen Anne's Gate, S.W.1, or direct from Venesta, Ltd., Vintry House, Queen Street Place, London, E.C.4. Latest date for submission of designs: February 12, 1931.

April 1.—An international competition for the development of the uses of aluminium and its alloys, open to inventors of any nationality, is to be held annually by the International Aluminium Bureau. The competition will be divided into two sections. The prizes to be awarded are 25,000 French francs for the entries under Sections A (methods of working or using the metal) and B (manufacture of articles therefrom) respectively, and 50,000 French francs to the author of a suggestion which has exceptional interest or value under either section. Entries may be submitted between January 1 and April 1, 1931. Full particulars are obtainable from the Bureau International de l'Aluminium, 23 bis, Rue de Balzac, Paris, France.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

36368. Baines, J. Compound panels for roofing, etc. December 3.

36811. Baines, J. Building units. December 6.

36853. Greig, B. Concrete, etc., construction. December 6.

SPECIFICATIONS PUBLISHED

338999. Evans, J. W. Metal window frames and casements or sashes therefor, and the method of manufacturing the same.

339090. Newman and Sons, Ltd., W., and Rollason, S. A. Apparatus for closing and checking sliding doors, gates, and the like.

TRADE NOTES

Messrs. Speirs & Co., of 16-18 Bucknall Street, London, W.C.2, have issued a new catalogue of sanitary fittings, containing a selection of their latest designs. All the goods illustrated and priced are of British manufacture. The earthenware lavatory basins and pedestal closets are designed on the best hygienic principles, and are of the highest grade in quality and finish. The fireclay lavatory basins, urinal stalls, pedestal closets and sinks are all leadless glazed and non-absorbent. The firm claim that for public institutions, schools, hotels, and other places, where strength and reliability combined with the highest form of hygiene are required, these goods cannot be surpassed. The baths are all heavy cast-iron, and the porcelain enamel, either white or coloured, is claimed to be the best quality.

*

The move of the Federation of British Industries from its old offices at the corner of St. James's Street and Piccadilly which it has occupied for so many years, took place recently, in order that the organization would be installed in its new building prior to the Christmas holidays. It will be remembered that the Federation have been building their own offices at No. 33 Tothill Street, Westminster, for the last two years. It will also be recalled that the previous building which stood upon this site was occupied by the Architectural Press.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :

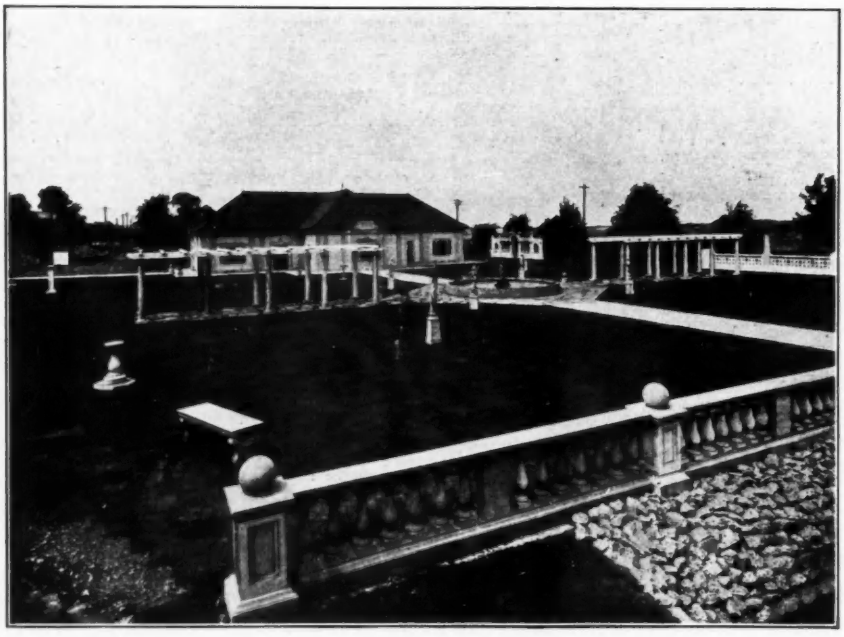
Savings Bank, Liverpool (pages 935-937). General contractors, Joshua Henshaw and Sons. Mr. H. Tyson Smith, carving and modelling. Sub-contractors : Henshaw Bros., plumbing and painting; McIntyre and Sons, Ltd., constructional steelwork; Killick and Cochran, heating installation; John Hunter & Co., electrical installation; Birmingham Guild, Ltd., electric light fittings, metal lettering and name plates; Rowe Bros. & Co., Ltd., metal windows, etc.; Comyn, Ching & Co., Ltd., laylight; Milner's Safe Co., Ltd., strong room door and safe; Roberts, Adlard & Co., tiling to roof; Musgraves (Liverpool), Ltd., sanitary fittings; Korkoid Decorative Floors, Ruboleum and linoleum; J. H. and I. Sankey, Ltd., bank fittings.

Daniel Neal's New Store, Portman Court, W. (pages 938-940). Sub-contractors : Higgs and Hill, Ltd., oak floors; Hall, Beddall & Co., Ltd., plastering, teak staircases, and general decorations; Killby and Gayford, Ltd., formation of fronts, partitions, etc.; Fenning & Co., Ltd., marble and granite; Thornton Alder & Co., electric installation; Waygood-Otis, Ltd., passenger lifts: Morris-Singer, staircase balustrades and entrance gates; Lamson Pneumatic Tube Co., payment and vacuum plant; Rosser and Russell, Ltd., ventilation plant; Young, Austen, and Young, hot water, heating and domestic supplies; James Gibbons, Ltd., bronze window sashes; Harris and Sheldon, Ltd., bronze shopfronts, interior fixtures and fittings and staircase panelling; Turner, Lord & Co., ladies' fashion shoe salon; Yannedis & Co., ironmongery to special design; J. Akers, lighted name fascias; Mallinson and Sons, Ltd., specially selected veneers.

The architectural metalwork at the Orpheum Theatre, Finchley, illustrated in THE ARCHITECTS' JOURNAL for December 10, was carried out by Messrs. The Kingsmill Co., and comprised balcony balustradings, bronze section handrailing, grilles in proscenium, balustrading in the foyer, and the bronze shaped section handrails on the staircases.

*

The roof lights used in Cropthorne Court, Maida Vale, W., designed by Sir Giles Gilbert Scott and illustrated in our last issue, were carried out by Messrs. J. A. King & Co., Ltd.



A general view of the exhibition of concrete work at Kent Portland Cement Works, Greenhithe, Kent. It is one of a chain of permanent exhibitions to be installed at the works of the Associated Portland Cement Manufacturers, Ltd. and the British Portland Cement Manufacturers, Ltd. The chief aim has been to show as many different types of concrete work as possible, rather than to follow any definite architectural design, and, whilst the artistic side of concrete is the dominant feature, its utilitarian aspect has not been lost sight of. Here one may see a fine doorway; within a stone's throw is a trough for the humble pig-sty. Delicately coloured and polished slabs are shown in contrast to a section of concrete road, specially made to withstand heavy, fast-moving traffic.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

The Housing Committee of the BARNES Council estimate that a total of one hundred new houses of a working-class type would be erected by the Council during the next five years, under the Housing Act, 1930.

The Reddins Road L.C.C. School, CAMBERWELL, is being remodelled at a cost of £12,242.

The renovation and reconditioning of the Mansion House, CITY, E.C., will cost approximately £50,000.

The plans of a new elementary school at EAST HAM have been approved by the Board of Education. The architects are Messrs. Marshall and Partners.

Work is proceeding on the excavations for the new hotel which will occupy a site of 56,000 square feet at MARBLE ARCH. This hotel, which will be completed in the early part of 1933, will be owned jointly by Messrs. J. Lyons & Co., Ltd., and the Strand Hotel, Ltd.; a separate company is being formed for the purpose. The steel frame, which is being manufactured and erected by Messrs. Dorman, Long & Co., Ltd., will weigh over 10,000 tons, and deliveries are expected to commence early in January. There will be eight floors and a roof above ground level, and, in addition, a basement and sub-basement. Owing to the vast size of the site, nearly 3,000 tons of steel will be employed before the building reaches ground level. The new tube railway station will be incorporated in the main entrance in Oxford Street, and a large booking-hall, for which Dorman, Long & Co., Ltd., have also supplied the steelwork, is at present being constructed underneath Oxford Street. The hotel will contain 900 bedrooms, and is estimated to cost £1,500,000. The architect is Mr. F. J. Wills, F.R.I.B.A. The engineers are Messrs. Reade, Jackson and Parry, and the contractors for the foundations are Messrs. Holloway Bros. The steelwork is by Messrs. Dorman, Long.

The MARYLEBONE B.C. has approved proposals by Messrs. Selfridge & Co., Ltd., for extending their Oxford Street store as far as Wigmore Street. The report showed that it was proposed to erect a large commercial building to cover the area bounded by Oxford Street, Duke Street, Wigmore Street, and Orchard Street, which would involve the stopping up of Edward's Mews and Somerset Street. The proposals also provided for the surrender to the public way not only of the existing forecourts on the Duke Street, Wigmore Street and Orchard Street frontages, but also strips of land on the Wigmore Street and Orchard Street fronts. The estimated cost is £3,000,000.

The MERTON AND MORDEN U.D.C. is awaiting the approval of the Ministry of Health for the purchase of one-and-three-quarter acres of land in Long Walk, for housing purposes.

The reconstruction of the arch in East Barnet Road, NEW BARNET, and other highway improvements in the immediate locality, are to be carried out at a cost of £30,000.

Negotiations by SOUTHWARK Council for the buying of property which is needed for the Town Hall extension have been successful.

The Mayor of Wandsworth (Councillor Lt.-Col. A. Bellamy), addressing the pupils of the WANDSWORTH Technical Institute, announced that the L.C.C. had made provision for the expenditure of £35,000 for additional accommodation at the Institute.

SOUTHERN COUNTIES.

Plans passed by the CHATHAM Town Council: Twelve houses, Montrose Avenue, for Messrs. A. E. Clifford and Co.; extension, Pagitt Street, Neville Road, and Balfour Road, for the trustees of Watts' Charity (provisionally); two houses, Neville Road, for Messrs. W. T. Davis and Son; bungalow, King Edward Road, Walderslade, for Mr. E. H. Walker; alterations to cinema, High Street, for Chatham Empire Theatre, Ltd.; alterations to Workmen's Club, 106 Palmerston Road, for Messrs. Fremlin's, Ltd. (provisionally); house, Park Crescent, for Mr. H. P. Hughes; two houses, Castle Road, for Mr. C. J. Howard; two bungalows, Clarence Road, for Mr. G. B. Silver; house, Longhill Avenue, for Mr. A. E. Attwood; cottage, Connaught Road, for Messrs. W. T. Davis and Son.

Plans passed by the HAILSHAM R.D.C.: Garage, Bodle Street, for Mr. R. S. W. Sears; office accommodation, Park Gates, Hellingly, for the County Council; bungalow, Red Pale, Warbleton, for Mrs. D. Burgess; bungalow, Cowbeech, Herstmonceux, for Messrs. Long and Blundell; bungalow, Union Road, Hellingly, for Mr. C. F. Christmas; house, Horsebridge, Hellingly, for Mr. J. Izzard.

The Finance Committee of the RYE Council has approved an amended layout plan, prepared by Mr. John Ashenden, of the upper portion of the Cadborough Housing (Surplus) Site, making provision for the erection of twelve houses.

The old RYE mill, which was destroyed by fire last summer, is to be replaced by an exactly similar structure. Plans for the rebuilding of the mill have been passed by the Rye Council.

Plans passed by the SEAFORD U.D.C.: Cottage, Firle Road, for Messrs. Godfrey Bros.; garage, "The Doon," Southdown Road, for Messrs. A. and H. Burgess; garage, "Hillcrest," Sutton Drove, for Mr. E. N. Rix; house, Salisbury Road, for Mr. W. Wilkinson; electric substation, Grosvenor Road, for Messrs. A. and H. Burgess; nine houses, Vale Road, for Messrs. Hutchings Bros.; club house, Mercread Road, for Mr. C. Morling; house, Headland Avenue, for Mr. C. Morling.

SOUTH-WESTERN COUNTIES

The BARNSTAPLE R.D.C. is to erect the following houses in various parishes: Bishopstawton, six; Bratton Fleming, four; Combe Martin, twelve; Fremington, twelve; Heanton Punchardon, four; Instow, eight; Landkey, four; Marwood, twelve; Mortehoe, six; Swimbridge, sixteen; Tawstock, four; and Westdown, eight, making a total of ninety-six.

A five-years' programme of house building, slum clearance and improvement schemes in BRISTOL, announced in our last issue, to be carried out at an estimated cost of £3,500,000, was approved at a meeting of Bristol City Council.

The CLUTTON R.D.C. has decided to erect twelve non-parlour houses in the district.

The Public Health Committee of the EXETER Town Council recommend that the Council submit to the Minister of Health a programme for the erection of 500 houses during the next five years.

Plans passed by the LANGPORT R.D.C.: Cottage, Kingsbury Episcopi, for Messrs. W. and T. Jennings; cottage, Lower Burrow, Kingsbury Episcopi, for Mr. W. Mounter; cottage, Foddington, Babcary, for Mr. J. A. Bartlett; cottage, Muchelney Ham, for Mr. S. Lenton.

The PLYMOUTH Corporation has passed plans for a new theatre to be built in place of the existing Andrews Picture House, in Union Street, Plymouth. Plans have been prepared by Mr. W. H. Watkins.

The SALISBURY City Council has resolved to proceed with a further housing scheme. Fourteen and a-half acres of land on the Pembroke Park estate are to be bought for the erection of houses.

EASTERN COUNTIES

The CAISTOR R.D.C. has accepted the recommendations of the Joint Isolation Hospital Committee with respect to their general hospital and the smallpox hospital at Osgodby. The Council has also decided to adopt a further scheme for the building of thirty houses during next year.

The CASTLE DONINGTON R.D.C. has decided on the East Way site for non-parlour type houses, to be built at Castle Donington.

A cinema with seating capacity for 700 persons is to be built at DOWNHAM, Norfolk. The building, which will include a dance hall, is to stand on the site of the existing post-office, and the latter is to be demolished almost immediately. Messrs. J. Laurie Earnell and W. Dymoke White are the architects.

A rebuilding programme involving the construction of 850 houses and the reconstruction of 1,500 others is recommended to the YARMOUTH Town Council.

MIDLAND COUNTIES

Sketch plans for the enlargement of the DERBY Technical College have been forwarded to the Board of Education for preliminary approval.

The FOLESHILL R.D.C. has approved plans for the erection of four pairs of semi-detached houses in Watery Lane and Penny Park Lane, Keresley, for Mr. W. H. Broad.

Approval was given at a recent meeting of the MALMESBURY R.D.C. for the erection of twelve new houses at Sherston.

A long report dealing with housing in Walsall during the next five years has been issued by the Housing Committee of the WALSALL Council. If 4,000 houses are erected the average annual capital expenditure will be £303,000, and if 5,000 are erected the cost will be £378,000.

NORTHERN COUNTIES

The BEDLINGTON U.D.C. intend to erect a further 700 houses. Negotiations are projected for the purchase of building sites at the West End, Bedlington Station, Cambois, and Stakeford.

The BLACKPOOL Housing and Estates Committee has approved of the proposals to acquire the old trotting track near Squire's Gate, this being a further step in the scheme to build 2,000 more houses in the district.

The trustees of the Pilgrim Trust are placing £25,000 at the disposal of the Committee for the Preservation of DURHAM Castle.

At a meeting of the GRIMSBY Finance Committee it was reported that preliminary arrangements for the purchase of the site of the old Cattle Market from Lord Yarborough had been settled. The Corporation is to build a new cattle market in the Little Coates area.

The HEYWOOD Town Council has adopted a statement for submission to the Ministry of Health, showing what it is proposed to do to provide houses in the next five years. It is estimated that about 600 houses will be provided by local authority and private enterprise combined.

The LEEDS Corporation is spending £25,000 in restoring Kirkstall Abbey, a twelfth-century edifice.

MIDDLESBROUGH's big slum area—Nile Street—is to be demolished and rebuilt under the five-year housing scheme which the Middlesbrough Housing Committee considered at a recent meeting. The area of the scheme is 2·36 acres and includes 169 houses, shops and lodging-houses.

During the next five years it is estimated that there will be 1,199 houses built by the ST. HELENS Corporation, 399 by the Health Committee to provide for those dispossessed by closing orders, and 800 by the Housing Committee. In addition, it is estimated that 500 houses will be built by private enterprise, 200 of which will probably be subsidy houses. It is also estimated that there will be 1,500 houses to be repaired.

In addition to the ordinary programme of houses to be erected, the SCARBOROUGH Town Council proposes to provide seventy-six new houses during the next five years.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington ..	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh ..	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_2	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_2	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_2	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_2	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_2	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_2	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn ..	N.W.Counties	1 7	1 2½
A	Blackpool ..	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_2	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_2	Boston ..	Mid. Counties	1 5½	1 1
A_2	Bournemouth	S. Counties	1 5½	1 1
B_2	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_2	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_2	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_2	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_2	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_2	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon ..	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford ..	Yorkshire	1 7	1 2½
B_1	Chatham ..	S. Counties	1 4½	1 0½
B_1	Chelmsford	E. Counties	1 4½	1 0½
A_2	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank ..	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_2	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury ..	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster ..	Yorkshire	1 7	1 2½
B_2	Dorchester	S.W. Counties	1 3½	11½
A_2	Driffield ..	Yorks	1 5½	1 1
A_2	Droitwich ..	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham ..	N.W. Counties	1 7	1 2½
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_2	Gloucester ..	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_2	Grantham ..	Mid. Counties	1 5½	1 1
A_1	Gravesend ..	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate ..	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_2	Ipswich ..	E. Counties	1 5½	1 1
B_2	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_2	Lewes ..	S. Counties	1 3½	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A_2	Liverpool ..	N.W. Counties	*1 9	1 3½
A_2	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12-miles radius)		1 8½	1 3½
	Do. (12–15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Loughborough	Mid. Counties	1 7	1 2½
A	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLESFIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone ..	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_2	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middlesbrough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_2	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe	N.W. Counties	1 7	1 2½
A_1	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle ..	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_2	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_2	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_2	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Wellingborough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolverhampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarant e the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, *1s. 3½d. per hour;* LABOURER, *1s. 3½d. per hour;* NAVVY, *1s. 3½d. per hour;* TIMBERMAN, *1s. 5d. per hour;* SCAFFOLDER, *1s. 4½d. per hour;* WATCHMAN, *7s. 6d. per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	10	0
Pit gravel, per yd.	0	15	0
Pit sand, per yd.	0	12	6
Washed sand, per yd.	0	13	0
Screened ballast or gravel, add 10 per cent. per yd.			
Clinker, breeze, etc., prices according to locality.			
Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.			
Transport hire per day:			
Cart and horse £1 3 0 *Trailer*	£0	15	0
3-ton motor lorry 3 15 0 *Steam roller*	4	5	0
Steam lorry, 5-ton 4 0 0 *Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.			
IF left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	1	17	6
DO. 6-2-1, per yd. cube	1	12	6
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	14	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	3	0
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

LABOURER, *1s. 3½d. per hour;* TIMBERMAN, *1s. 5d. per hour;* BRICKLAYER, *1s. 8½d. per hour;* PLUMBER, *1s. 8½d. per hour;* WATCHMAN, *7s. 6d. per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see "Excavator" above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0	4	3
DO. 6 in., per ft.	0	5	0
DO. 9 in., per ft.	0	7	9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	8	3
DO. 6 in., per ft.	0	10	3

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, *1s. 8½d. per hour;* LABOURER, *1s. 3½d. per hour;* SCAFFOLDER, *1s. 4½d. per hour.*

London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9¼ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			

Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

MASON

MASON, *1s. 8½d. per hour;* DO. *fixer,* *1s. 9½d. per hour;* LABOURER, *1s. 3½d. per hour;* SCAFFOLDER *1s. 4½d. per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			

HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup.	0	1	6

SLATER AND TILER

SLATER *1s. 8½d. per hour;* TILER, *1s. 8½d. per hour;* SCAFFOLDER, *1s. 4½d. per hour;* LABOURER, *1s. 3½d. per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:			
Portmadoc Ladies	£14	0	0
Countess	23	0	0
Duchess	32	10	0
Old Delabole Med. Grey	£45	1	0
24 in. × 12 in. £42 11 3			
20 in. × 10 in. 31 4 3	33	0	6
16 in. × 10 in. 20 18 0	22	4	9
14 in. × 8 in. 12 1 0	12	16	3
Med. Green			
Green Randoms, per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

Med. Grey			Med. Green		
24 in. × 12 in.	£5	0 0	£5	2	0
20 in. × 10 in.	5	5 0	5	10	0
16 in. × 10 in.	4	15 0	5	1	0
14 in. × 8 in.	4	10 0	4	15	0
Green randoms			6	7	0
Grey-green do.			5	9	0
Green peggies, 12 in. to 8 in. long			4	13	6

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries" for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, *1s. 8½d. per hour;* JOINER, *1s. 8½d. per hour;* LABOURER, *1s. 3½d. per hour.*

Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds):			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[*continued overleaf*

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour ;* MATE, *do.,* 1*s.* 3½*d. per hour ;* ERECTOR, 1*s.* 8½*d. per hour ;* FITTER, 1*s.* 8½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour ;* MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb.*	0	1	6
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ¾ in., per ft.	0	1	8
DO. ¾ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1¼ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ¾ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO., ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see " Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. *26 oz.*	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* ,,	0	2	3
DO. *6 ft. sup.* ,,	0	2	6
DO. *20 ft. sup.* ,,	0	3	1
DO. *45 ft. sup.* ,,	0	3	3
DO. *65 ft. sup.* ,,	0	3	5
DO. *100 ft. sup.* ,,	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *½ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span, 1*s* 6*d.* to 2*s.* per ft.
LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up £0 3 0
Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour ;* LABOURER, 1*s.* 3½*d. per hour ;* FRENCH POLISHER, 1*s.* 8½*d. per hour ;* PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.
The measured work price is on the same basis . . . per ft. sup. £0 0 2½

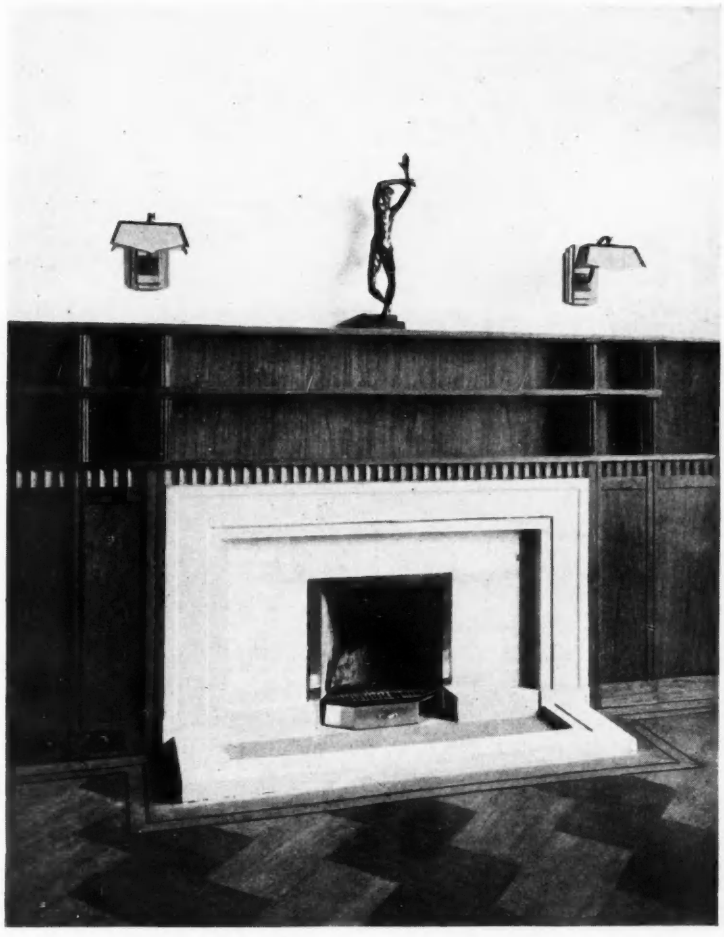
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. from 3d. to	0	0	6
Plaster-board, per yd. sup. from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including, battens, or boards, plain " diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¼ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including, wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½ —		1 0½	10 —	
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	5½	5	—	6	—	—	—	—	—

SCALE DETAILS:
A WEEKLY SERIES



STUDY FIREPLACE,
NO. 37 PORCHESTER TERRACE, W.
Designed by EDWARD MAUFE

BY surrounding the fireplace with bookshelves and cupboards, a very dignified little composition has been achieved that incorporates some detail of a most refined character.

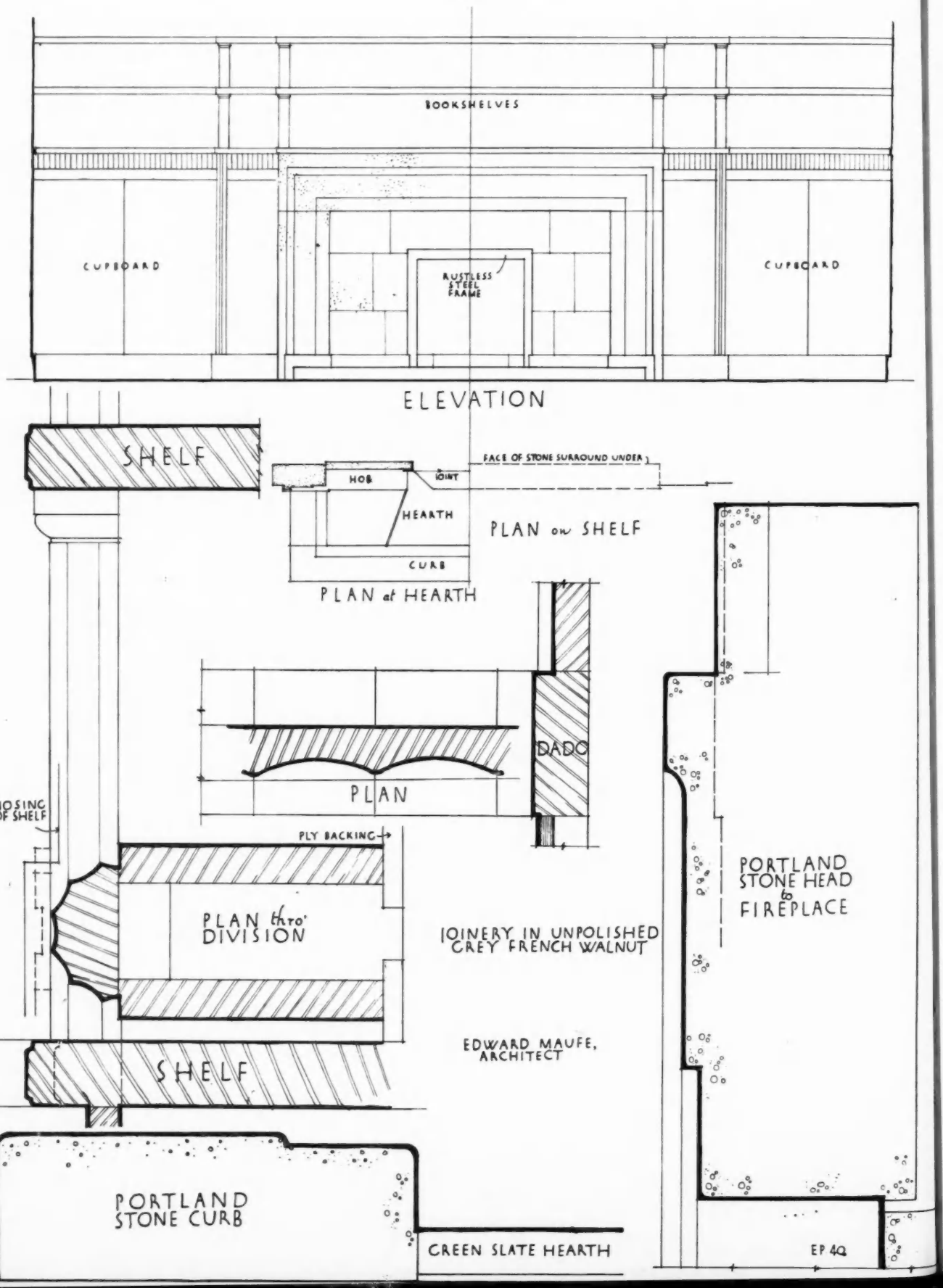
The surround of the fire itself, which is of Whitbed Portland stone, finished with a gritty face, takes the form of a simple architrave of flat projections. This, as it should, picks up the hearth curb in the same material, the hearth itself being of green slate in three pieces, with full $\frac{3}{8}$-inch wide joints.

All the joinery of the bookshelves and flanking cupboards is in unstained natural French walnut of a pink-grey colour, and the detail (which is shown overleaf) is interesting and carefully considered.

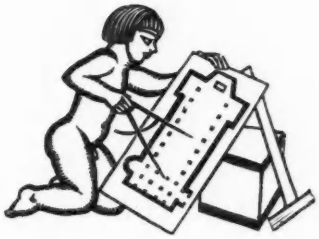
The photograph above shows the fireplace fixed in position, with its frame of rustless steel.

The drawings overleaf may be read with architects' ordinary scales.

37 PORCHESTER TERRACE · W · STUDY FIREPLACE: ½"-SCALE & HALF FULL SIZE



THE ARCHITECTS' JOURNAL



WEDNESDAY, DECEMBER 31, 1930

GILT-EDGED BRICKS AND MORTAR

AT a time of almost universal trade depression it might seem remarkable that there should have been so much building activity as during the past year. There is no doubt that the building trades have up to the present not reflected the general tendency to decline to anything like the degree which has shown itself in so many other industries.

Evidence of the prevalent activity was provided by the Building Trades Exhibition last September, at which there was not only a record attendance but a record number of orders were taken. Why have these trades been more immune from the maladies which afflict the cotton and the steel industries, to mention only two of those now suffering acutely ?

In the first instance, it may be remarked that the building industry is less affected by foreign competition than are most others, for although a good deal of timber comes from abroad it is mostly of a kind which cannot be grown in England, and the importers of this foreign timber do a most profitable business. Only a small percentage of the stone and brick used for building in this country comes from foreign parts. Consequently the purveyors of building materials do not encounter to any great extent the cut-throat competition of foreign manufacturers.

Another important consideration which differentiates the building industry from others is that at a time when many kinds of Government stock are insecure, an investment in bricks and mortar is one of the most prudent that can be made. For while it is true that buildings may deteriorate in value they do not melt away in a single night after the manner of shares in joint-stock companies, which may perhaps go bankrupt as the result of mysterious happenings in Wall Street or elsewhere.

And there is yet a third cause for the present building activity, and this cause is likely to operate for some years to come. The age in which we live is an age of architectural destruction unprecedented in its extent, and the reason for this is that the period of a hundred years ago was one of very great building activity, and the 99-year leases of the structures then erected are now falling in. Although in the majority of instances these buildings have been kept in good repair and could if necessary be made to last many years more, their demolition is in most instances an economic necessity. The large ground rentals upon which the local authorities' permission to build to eighty feet or more in urban districts is contingent, renders it impossible to preserve these old buildings, in spite of the fact that very many of them are of great architectural merit.

In the course of the next ten years hundreds of thousands of pleasant three-storied and four-storied structures are destined to make way for tall buildings capable of being let at an economic rent. This process of rebuilding is likely to continue, no matter what the general financial situation of the country may be, because the ground landlords insist upon it and will continue to insist.

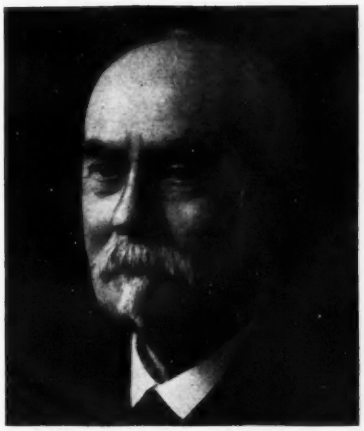
There are, however, still many industrialists and men of commerce who in their own interests should house their concerns in more up-to-date premises, but they have yet to be persuaded that it is advisable to incur this expenditure. In the coming year it will be one of the special tasks of this JOURNAL to ascertain how architects may put their special gift and knowledge at the service of British industry. Whether it be a question of the better planning of factories, so that the operations of manufacture may be more expeditiously and economically conducted, or whether it be a question of arranging a shop in such a manner that the arts of salesmanship can better be conducted therein, the architect must prove himself to be a well-spring of profitable advice.

Moreover, it will be his duty, in collaboration with the builder, to study every means of expediting and cheapening the processes of building, so that by skilful organization he will be able to give such good value for the money expended on building projects that the superior claims of this kind of investment will prove irresistible.



THROUGH TIP-TILTED ASTRAGALS:
A STUDY OF WHITELANDS COLLEGE

Among the many interesting features of Sir Giles Gilbert Scott's new training school for girls at Putney, which is illustrated on pages 971-975 of this issue, none is more arresting than that revealed in this photographic study. It shows a vista of the building seen through one of the numerous arched windows, which play an important part in the patterning of the front to the terrace. And these windows are given a novel effect by the upward tilting of the astragals, where they meet on the centre-line.



Sir Reginald Blomfield, R.A., to whose letters to The Times *on the subject of the design for the new South Africa House, Trafalgar Square, prepared by Sir Herbert Baker and reproduced as frontispiece to our issue for December 24, our contributor, Astragal, draws attention. Sir Reginald has, he thinks, "voiced the feelings of all right-thinking architects."*

NEWS & TOPICS

IN TRAFALGAR SQUARE

MY heart stood still when, coming round the festal portico of St. Martin-in-the-Fields, I found the dreaded hoardings rising round that stucco block that houses, on the Strand side, the Golden Cross Hotel; on its extremity, the Post Office of Charing Cross; and upon Trafalgar Square, the offices of the South African Government.

★

I love nearly all the London that Nash and his day built, but for this building I have had a peculiar and deep-seated affection. Not a sentimental one, for I know it to be founded on virtues that seem to have disappeared from London. I have loved it for its smooth surfaces, its delicate modelling, subtle and suggestive; for its affinity with the National Gallery and the Church; for the dignity of its obeisance to the Gallery at the head of the Square, for its "rightness" of architecture, for its exquisite manners.

★

And it is going; and I could weep to think of all that it takes with it, away and out of the knowledge of all that come after. It is a serious thing I speak of, because this fine building will be replaced by another so immeasurably its inferior in character and bearing that I am sorely tempted to infringe decorum by putting into print what I have in my heart to say.

★

Instead, Sir Reginald Blomfield has voiced the feelings of all right-thinking architects in two letters of dignified protest to *The Times*. And the reply to these letters exposes a point of view so wanton, and so careless of every virtue of communal architecture, that I despair of any good coming from the doleful exchange. So I bid farewell to what is going—and will close my eyes in future when I have to pass South Africa House.

SULPHUR FUMES FROM POWER STATIONS

The question of atmospheric pollution has again been raised at the inquiry which was held a fortnight ago in connection with the proposed power station for Fulham. This, like that at Battersea, is a station on the national grid system, a super-plant with a consumption of 2,000 tons of coal per week, and a correspondingly large sulphur emission. It is extremely hard to tell from reported speeches whether the systems of sulphur extraction put forward by the electricity engineers are really efficient to the extent demanded by health and reasonable economy in the upkeep of urban buildings. One feels a certain right to an attitude of suspicion in face of a very recently acquired consideration for health on the part of manufacturers and other owners of belching chimneys, and the more the experts look into the business the more they horrify us with new calculations of the enormous damage caused by the fumes of combustion.

★

Sir Frank Baines has stated that the area affected by power station fumes is far greater than one would suppose, and that London would not be by any means safe from the effects of power stations situated miles away on the lower Thames estuary. He also calculates that the damage to buildings over the country during a quarter-century is not less than £55,000,000—a sufficient incentive, one would say, to spend a good deal of time and money in bringing to *real* efficiency the existing machinery for rendering the atmosphere of towns clean and healthy. If this machinery becomes available at a not prohibitive cost, then we shall have legislation to see that it is put into general operation.

BY-PASSING OXFORD

According to the latest census the average number of vehicles, including motor-omnibuses, motor-coaches and heavy lorries, which cross Magdalen Bridge, Oxford, every day, is over 22,000. It is therefore good news that early in the New Year it is hoped to start work on a new by-pass road, which will enable heavy traffic to be diverted from the narrow streets of Oxford, where the vibration is threatening the stability of both colleges and churches. The proposed new road between South Hinksey and North Hinksey will enable traffic on the south to avoid Oxford altogether. The scheme as submitted by the Berkshire County Council has been approved in principle for a grant from the Road Fund. It is hoped that in addition there is the possibility of a northern by-pass road being commenced within the next few months.

NO JUGGERNAUT IN BROAD STREET, W.

It is curious how the æsthetic or humanitarian situation is sometimes saved by the cold logic of practicality impinging from a quite unexpected angle. When a short while ago there was talk of permitting higher buildings in London, it was not regard for design or sunlight or such-like amenities so much as the recognition of the risk of fire that won the day. And now it is not the possible risk to life and limb arising from a motor-coach station in the heart of the West End so much as considerations of traffic

congestion that have weighed with the Minister of Transport in drafting regulations that, if carried out, will render this coach station, against the situation of which I had something to say a week or two ago, useless for its purpose. We may well welcome any action which will have the effect of safeguarding such narrow, crowded streets, but, as usual, the problem does not seem to have been seen whole. There is a grave fear that the Minister of Transport's proposals will simply result in shifting the danger area from the hub to the spoke-ends, so to speak. Motor coaches are to be prohibited within a certain area ; that means, of course, that they will pick up and drop their passengers as near as they can get just outside it, and it is easily seen that what have hitherto been comparatively quiet by-streets, at a great number of points, will shortly be in the same unenviable state as would those round about Broad Street had the regulations not been made. Once again a far-sighted scheme of town-planning is the only remedy.

THE OPEN SPACES MOVEMENT IN HISTORY

Any further facilities that can be given to enable open spaces to be preserved from building are sure of a welcome from a generation alive, as never before, to the need for them : much is hoped from the 1931 town-planning measure. Looking back to the past, it is interesting to remember the struggle less than a century ago to provide parks and recreation grounds. In London, of course, the public owe Hyde Park, originally a Royal hunting-ground, and St. James's Park, formerly the grounds of St. James's Palace, to the generosity of the reigning monarch of the day.

★

The Crown also provided over £20,000 in order to secure Primrose Hill, south of Hampstead Heath, for the public, at a time when the authorities of Eton College were considering using it for building purposes. Victoria Park in the East End was completed in 1849 with money derived from the sale of York House, and Battersea Park in 1854. In Manchester, workmen's committees raised funds, and eventually three parks were bought. This success encouraged Oldham, Rochdale, Blackburn and Stockport to do likewise. The history of the movement for open spaces is one of continual struggle.

THE FATE OF RUSSBOROUGH, CO. WICKLOW

What will be the fate of Russborough ? Lady Turton, the widow of Sir Edmund Turton, recently offered it free to the Irish Free State Government as an Irish "Chequers," or, alternatively, as an Irish National museum. She has now informed Major Athoe, the Secretary of the Incorporated Association of Architects and Surveyors, that the Dail has had to refuse the offer on financial grounds, while Lady Turton herself, " as things are," cannot maintain the house and estate. Russborough is a cut-stone mansion, consisting of a centre block and wings, situated three miles south of Blessington, Co. Wicklow, and is remarkable both for its lavish internal decoration and for its long and imposing front of 700 feet. The design was the joint production of Richard Castle and David Bindon, the material being granite from the Golden Hill quarry, which supplied stone for Nelson's column. This great building took many years to complete ; in 1748 it is described as " a noble new house forming into perfection." Artificers were brought from different parts of Europe, statues from Herculaneum, marble from Sicily, and mahogany from the West Indies, the tasteful decoration of the interior being apparently the great object of the owner. After the Rebellion of 1798, when the house suffered no injury at the hands of the rebels, the King's forces were quartered there, and they committed serious damage to the many works of art with which the house was filled : pulled down roofs for firewood, cut down old timber for sentry-boxes, and left the offices and outbuildings little better than uninhabitable ruins. Russborough stands on an artificial embankment, formed probably with the clay which was excavated to form the succession of fish-ponds in front, which cover an area of acres.

" TINKER, TAILOR . . . " AT WAREHAM, DORSET

The Council of Wareham in Dorsetshire have decided with a show of firmness that if all men cannot be equal before the R.I.B.A., they prefer to do without R.I.B.A.s and get plain Misters to do their housing for them. Architecture being an imponderable matter to some councillors, I suppose it would be rash to suggest that their next Medical Officer of Health should be drawn from the ranks of intelligent and interested laymen instead of from the members of some fussy institute or other with tiresome requirements as to medical knowledge, integrity, and so on. It would be much easier and not many people would die. Anyway, we don't really want the best, you know. Just something that will suit us.

ARCHITECTURE FROM ALOFT

German architects are now studying the effect of their buildings from the air. A number of prominent architects have made special flights from this point of view. It must be remembered that one characteristic of the Germanic race is " ornung muss sein " or " there must be order." Furthermore, in every city and town in Germany there is a civic board of architects, to which building plans are submitted. Today, with the rapid advance in air traffic, it is regarded as of importance that the view from above should be sightly. Those who have flown over Germany are full of praise for the picturesque appearance of such a town as Nuremberg, for steep roofs, gables and broken lines offer a more delightful picture from above than mere flat roofs.

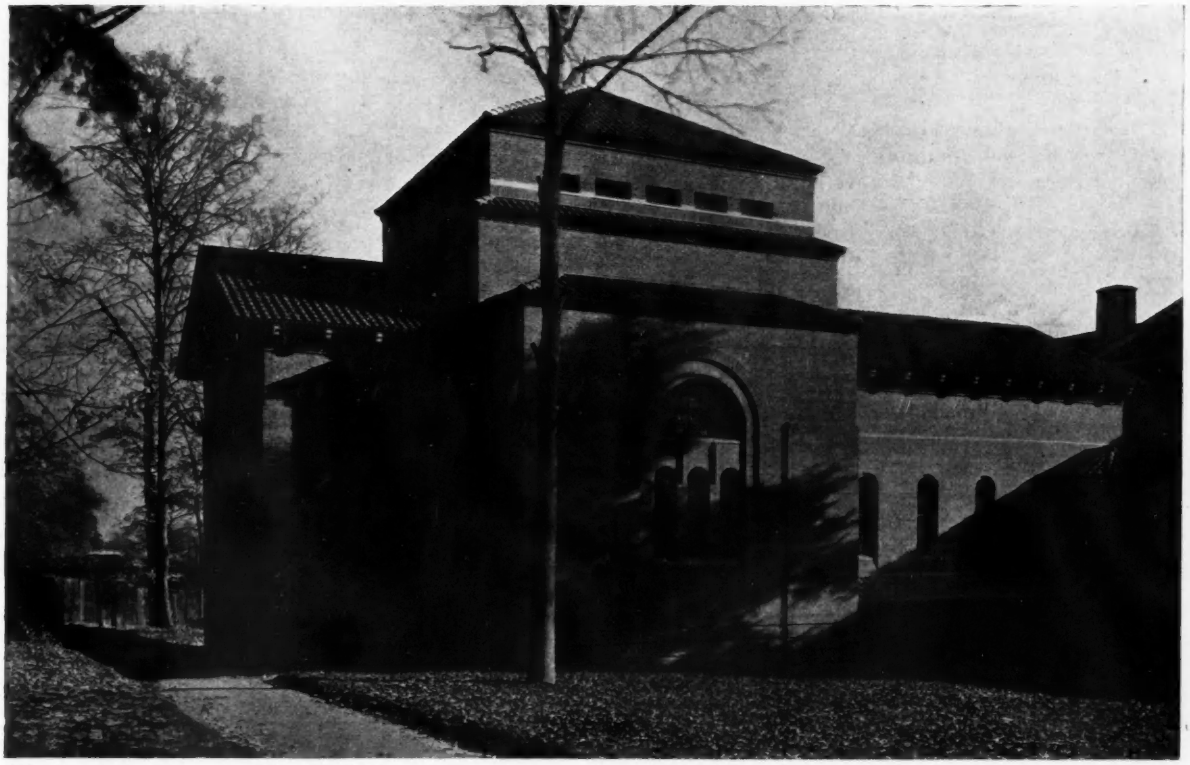
THE NOSE AS AN AGENT OF CIVILIZATION

I have lately read Miss Rose Macaulay's novel, *Staying with Relations*, of which the scene lies chiefly in Guatemala. It is a book for the architect, who will feel keenly the rich description of a modern mansion finished with a bit of every style known to civilization, ancient and modern. Moreover, I hit upon the following, which seems to me to enshrine several profound truths, one at least of which I do not remember to have seen enunciated before :

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That sense of smell we've gotten (it is Mr. James, American " realtor," who is speaking to the English travellers), I certainly think it's more a curse than a blessing, considering the strong odoriferousness of this world that we have to get about. The Spanish don't have it, either; if they did, the great Mex nation would not have arisen. That's a nation that was born out of the unparticularity of the Spanish race. It's a peculiar reflection, that the very quality which has given us northern folks our sanitary plumbing has stood in the way of our founding great nations of half-castes all the world over. Good plumbers, but poor mixers; that's what we are. Now the French, they don't get the hang of our colour problem at all; it just looks silly to them. But you folks have gotten this smell-sense worse than us, I guess; so you're worse mixers.

ASTRAGAL



The chapel from the west. The size of the window openings was determined by Burne-Jones's stained glass, which was removed from the old Whitelands Chapel in the King's Road, Chelsea. The main building begins on the right of the photograph.

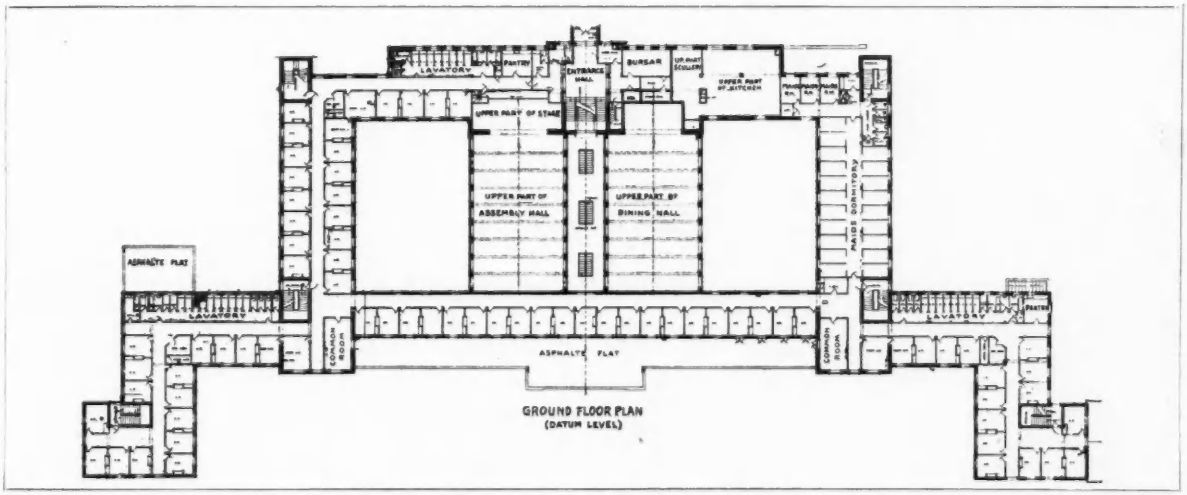
WHITELANDS COLLEGE,

Putney, London, S.W.

SIR GILES GILBERT SCOTT,
Architect.

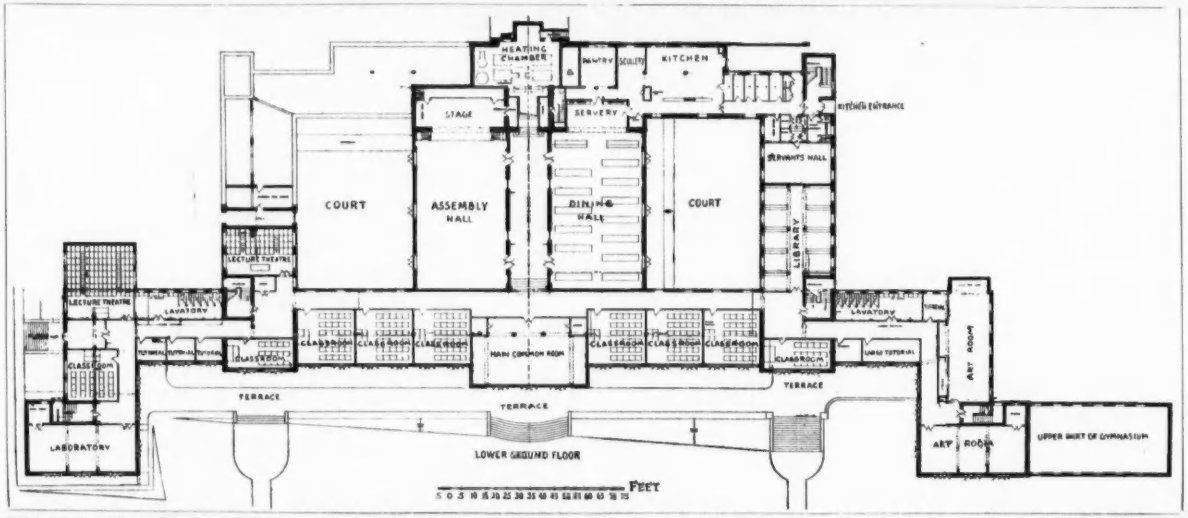
WHITELANDS Women's Training College for Teachers originally occupied a row of Tudor buildings in the King's Road, Chelsea, next door to the Duke of York's School, the headquarters of the Territorial Army Association, and formerly the home of the Duke of York's Boys, who were removed some few years ago to Dover.

The buildings occupied by the college in Chelsea eventually became inadequate for modern educational needs, and a site of twelve acres was secured at West Hill, East Putney, near Wimbledon Common, for the new college buildings and chapel. Sir Giles Gilbert Scott, R.A., was appointed architect, and the new college, which contains a study-bedroom for each student, common rooms and lecture rooms, a library, a gymnasium, and adequate accommodation for art, handwork and science, was completed this year. Playing-fields are provided within the college grounds.



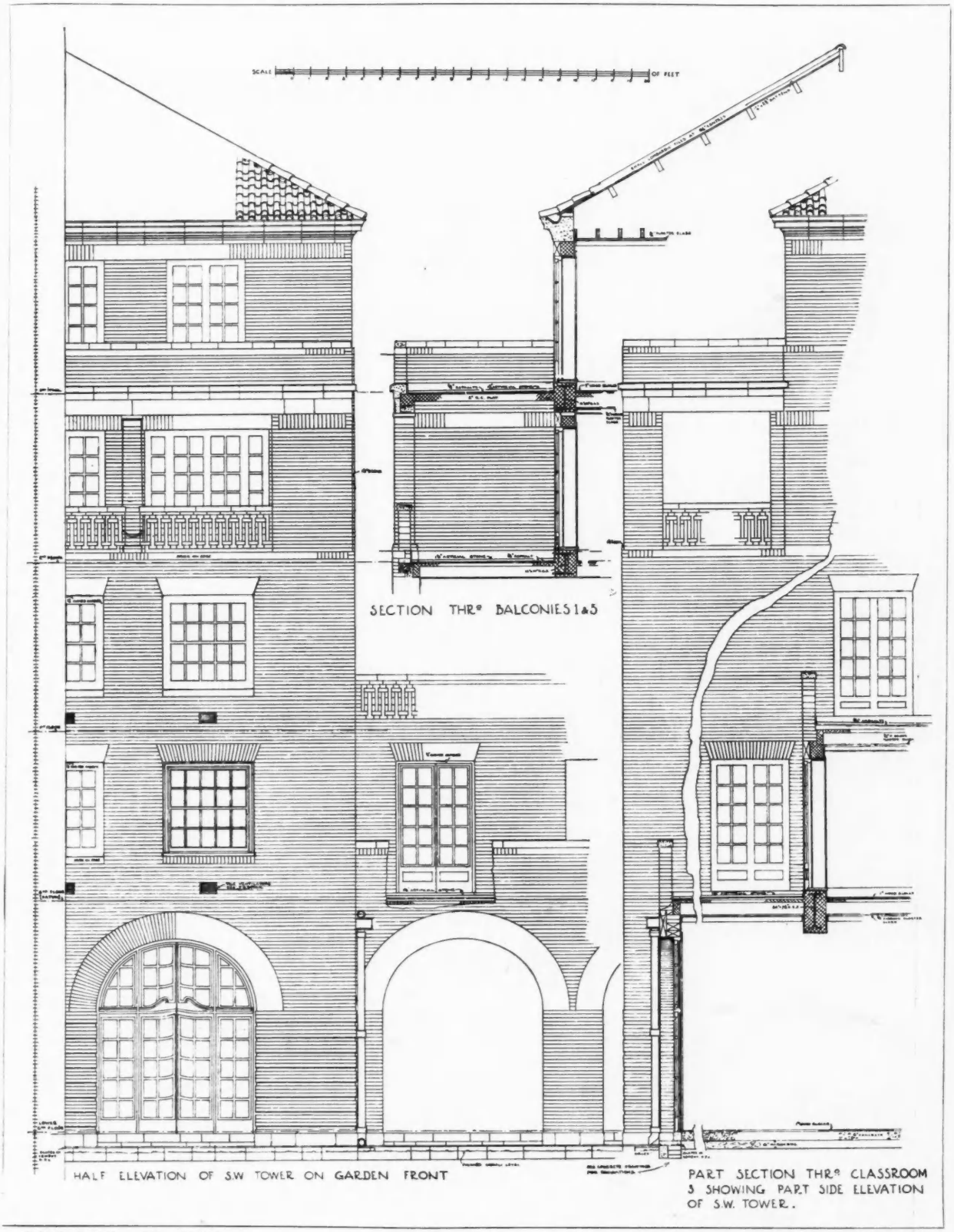
This ground-floor plan of the main building should be studied in conjunction with the lower ground-floor plan reproduced on the next page. The college has been designed to admit as much sunlight and to provide as large an area of roof garden as possible.





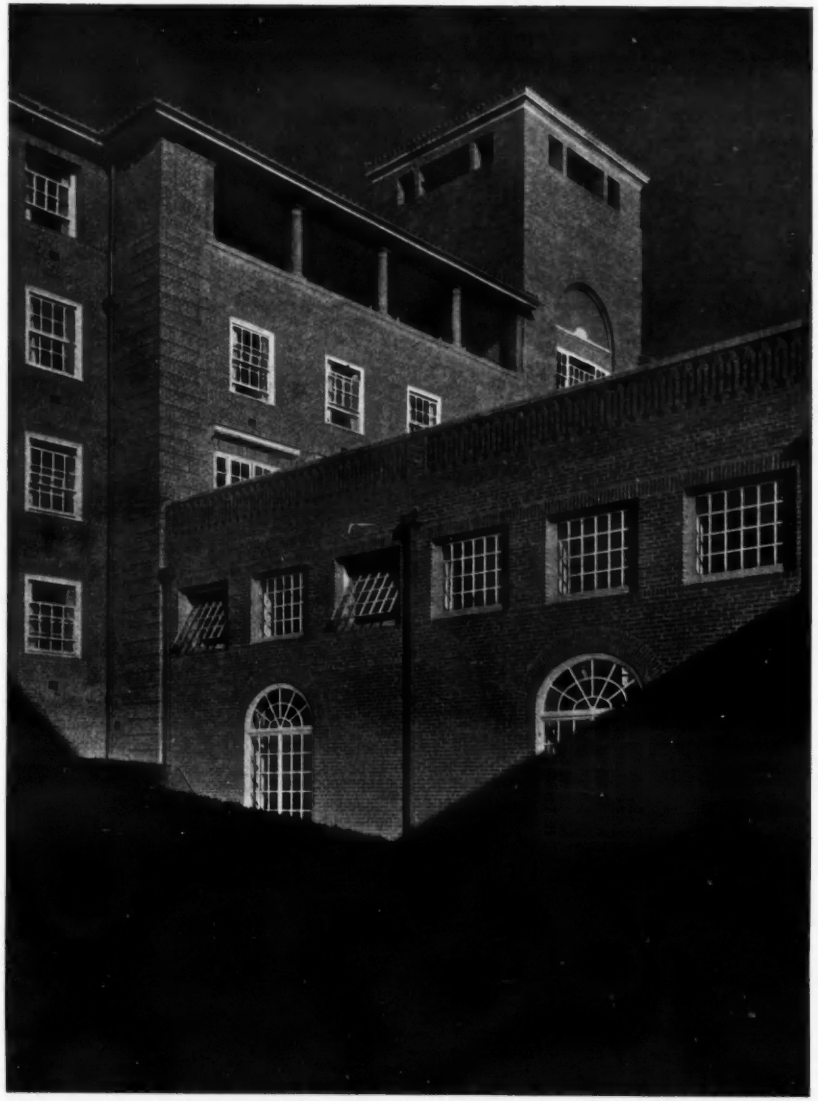
A photograph of the garden front, which faces south-south-east; and the architect's drawing of the lower ground-floor plan. The classrooms are all on the lower ground floor on the garden front and are lighted by large arched openings, fitted with French windows of interesting design (see frontispiece). The tower on the right contains an isolation block and an infirmary below, with a loggia. The central tower which crowns the main staircase contains water tanks. The elevations are built throughout in purple-brown bricks with white pointing and dressings of stone, the roofs being covered with red Italian tiles.

Whitelands College, Putney, S.W. [*By Sir Giles Gilbert Scott.*

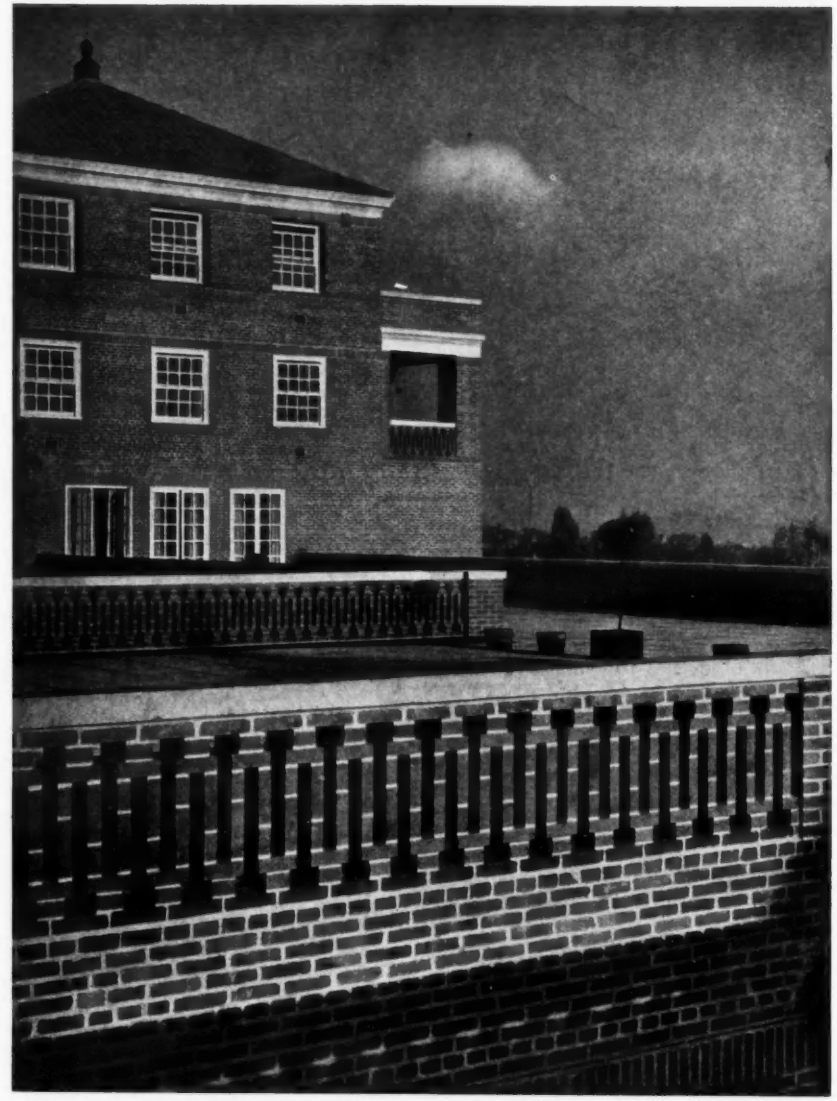


Whitelands College, Putney, S.W.] [*By Sir Giles Gilbert Scott.*

The architect's working drawings of the half elevation of south-west tower on the garden front, section through some of the balconies, and part section through classroom showing part of the side elevation of the south-west tower.



A photograph taken from one of the internal courts, showing the assembly hall, with a pierced brick parapet wall, and the central tower beyond.

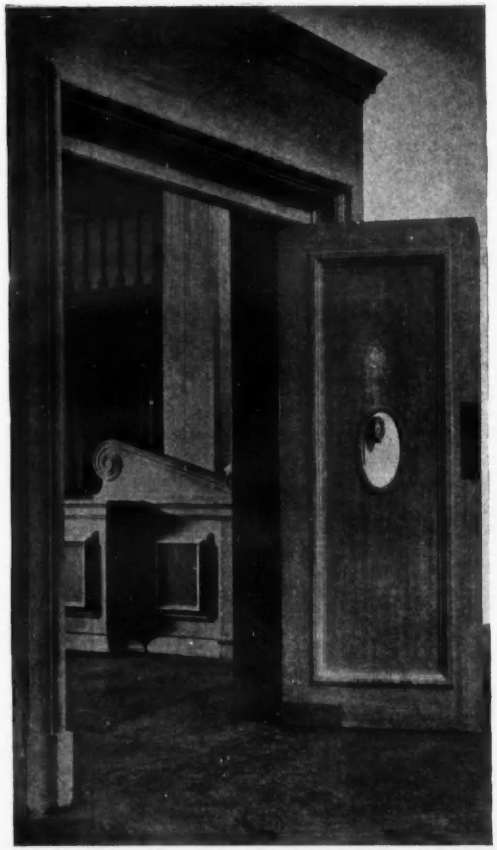


A view from one of the courts looking across the roof garden, which is paved with artificial stone with wide raked-out joints. In the distance is the infirmary wing.

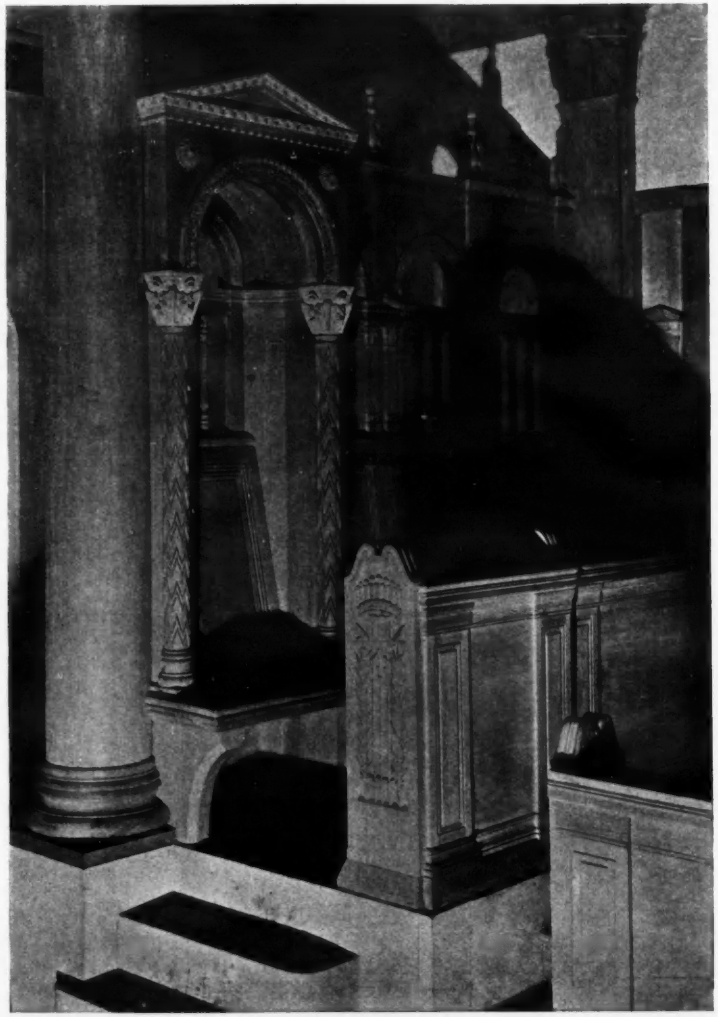
WHITELANDS COLLEGE

Putney, London, S.W.

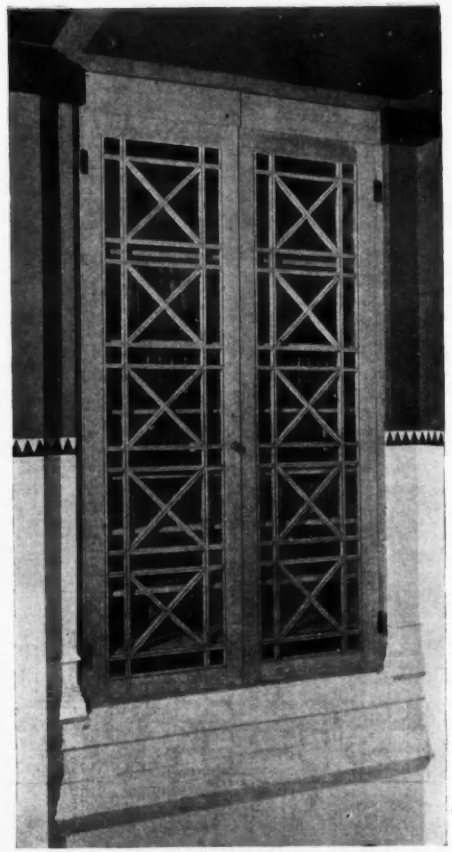
Designed by SIR GILES GILBERT SCOTT



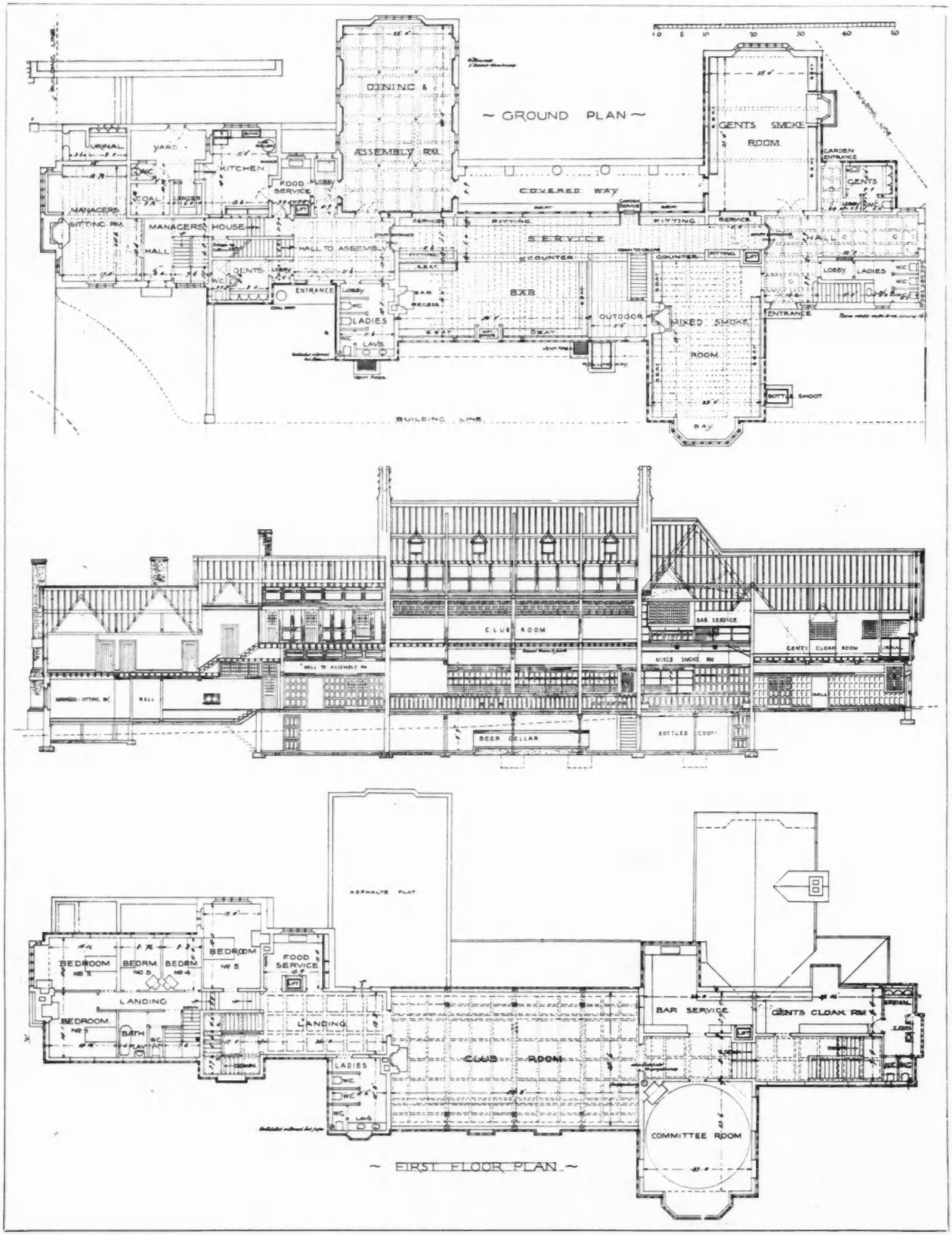
Looking from main corridor to stage in assembly hall.



Part of the screen in the chapel showing the principal's and staff's seats under the gallery at the end.



A fitted bookcase in the main common room.



Black Horse Hotel, Northfield, Birmingham.] [*By Bateman, Hale and Goldsbrough.*

The architects' drawings of ground floor ; longitudinal section ; and first floor. The length of the building runs approximately east and west, and faces to the main road (bottom of plan) in a southerly direction ; on the other side is the garden. The extent and variety of the accommodation are clearly shown, but attention may perhaps be drawn to the compact manager's house at the westerly end.



A general view, from the main road, showing the bar entrance, in the centre, and indicating the wide draw-up for vehicles.

THE BLACK HORSE, NORTHFIELD

DESIGNED BY BATEMAN, HALE AND GOLDSBROUGH

THE reconstructed Black Horse, Northfield, near Birmingham, is an example of the improved type of public-house now being provided in the Birmingham district in compliance with the policy of the City Licensing Authority. The intention is to encourage the erection of places of refreshment that shall be well and easily supervised by the manager, his staff and the police, that shall be convenient and pleasing inside and outside, and that shall offer such added attractions as a garden, bowling green and shelters, etc., for the summer months, together with an adequate draw-up space for motor cars in front.

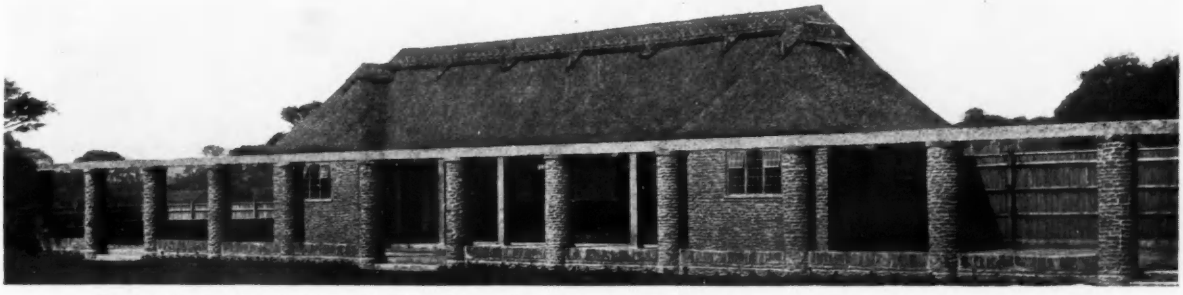
The accommodation provided includes a bar, an out-door department, gentlemen's and ladies' smoke-rooms and an assembly room, all served and supervised by the bar staff; a hall for dinners, luncheons, concerts and dances, with cloak-rooms and service rooms and lifts, *en suite*; and a committee room, for bowling club and other societies' meetings.



Part of the garden court, of which a more comprehensive view appears on the next page.

The cellars have received special attention in order to ensure as far as possible an equable temperature in winter and summer, together with easy ingress and egress of the goods; sanitary accommodation and ventilation have also been carefully considered.

Included in the plans, at the western end, but virtually self-contained, is a spacious and convenient manager's house.



The garden pavilion is thatched, and has, running before it, a pillared screen similar to that of the garden court.



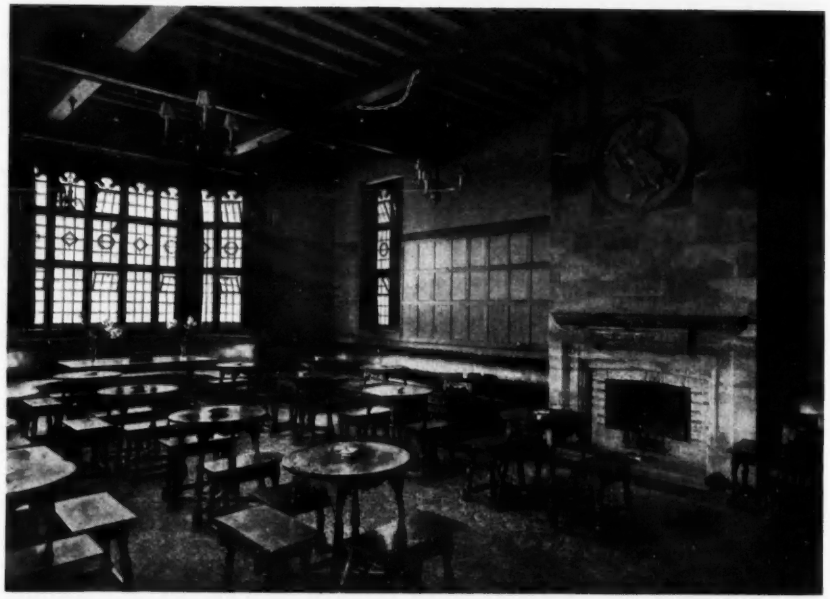
The garden front, showing the screen of brick pillars and the central garden court; this is overlooked by the high windows of the club room.



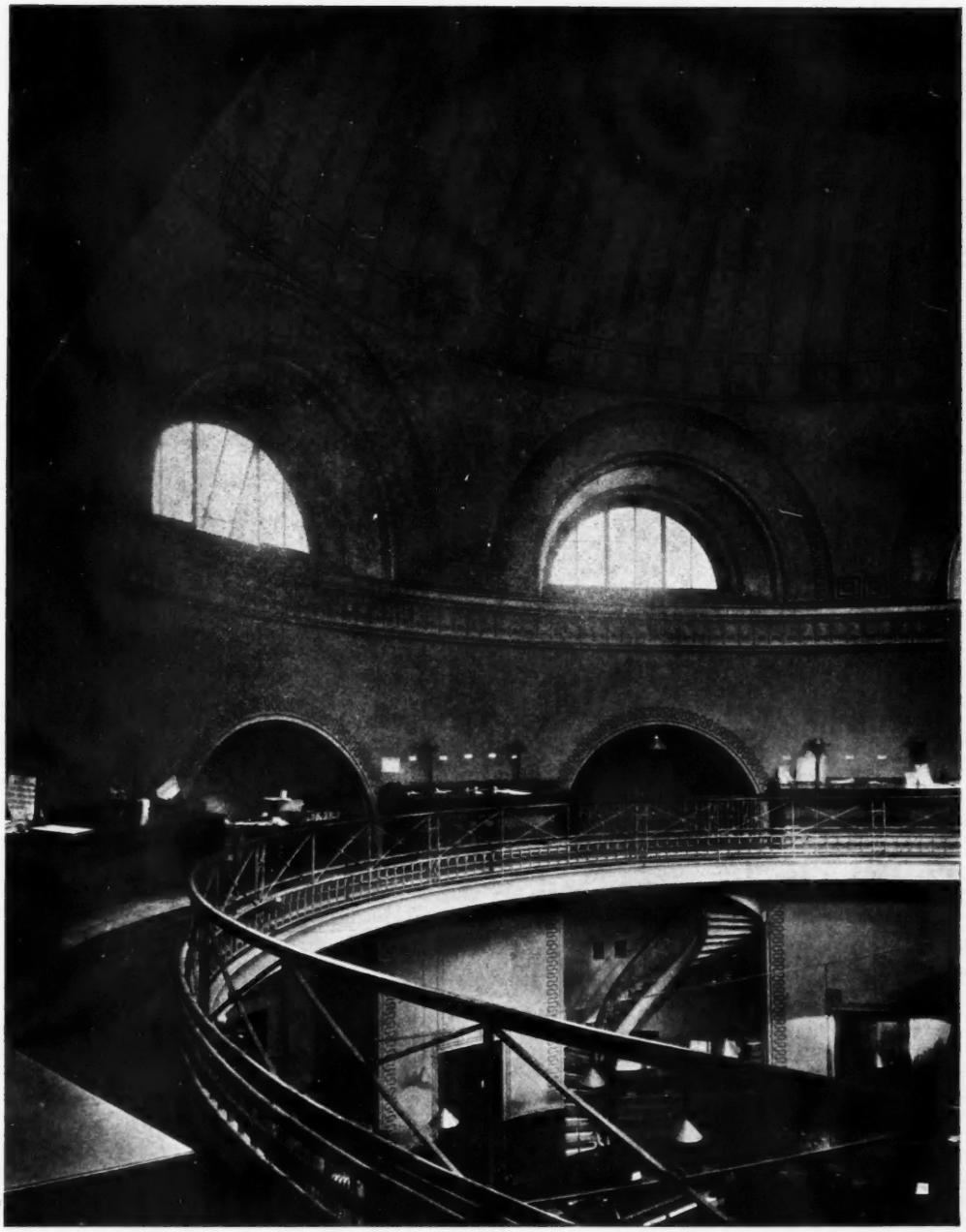
The east end. The line of the oad pavement is indicated on the left, and serves to show the wide pull-in space. On the right is the garden entrance.



Black Horse Hotel, Northfield, Birmingham.]
The bar, which occupies the centre of the building, facing the main road; the screen of the entrance doorway is seen on the left.



[By Bateman, Hale and Goldsbrough.
One of the spacious smoking rooms, with the sign of the inn over the fireplace, a device which is repeated elsewhere (see adjacent view).



From The Old Bank of England, *a review of which appears on page 992 of this issue.*

ENGLISH PRECEDENT No. 148

THE ROTUNDA, BANK OF ENGLAND, E.C.

Compare Sir John Soane's rotunda with Asplund's Library at Stockholm. Compare first the general effect and then the detail. Similarity of style will be found, arising, one might say, from similarity of attitude towards beautifully constructed design.

The gallery is a later addition which was not necessary to the original purpose. —[E. MAXWELL FRY]

* * *

Our contributor has seen the photographs of Stockholm Public Library to be published in our special New Year issue (January 14, 1931); when they too have seen them, readers will be able, the more readily, to make the comparison he enjoins.

As from the next issue (January 7, 1931), the Precedent section will be enlarged in scope, and will be found on the first page of the paper.—ED., A.J.

* * *

LETTERS FROM READERS

Housing: the Counter Revolution

SIR,—Your leader writer, in a letter under the above heading in your issue for December 17, says we are out for the negation of the principal virtues of careful planning in order that private individuals should make money out of the business. The only two departures from the principles of the present subsidy which we recommend are that density should be increased to twenty to the acre and that blocks of eight houses should be permitted. Both of these your leader writer admits are worthy of examination, but he talks of the "negation of the principles." It would appear that the unforgivable sin is that private enterprise wants to carry on business for profit.

NORMAN MCKELLEN
(SECRETARY, NATIONAL FEDERATION OF HOUSE BUILDERS)

Architects' Registration Bill

SIR,—It may be remarkable, but it is nevertheless a fact, that very few architects have anything but the haziest notion as to the provisions of the Registration Bill. Thus, in at least one recent meeting of architects in the provinces, reckless statements having reference to the Bill were made by the speakers, who can produce no foundation for them. Either these statements were made in ignorance, or for the purpose of intimidating the "unattached."

It is true that the Bill has received a second reading and has been remitted to a Standing Committee—but the Bill is not yet law and may never become law in its present form. It should be borne in mind that the Bill as drafted is a permissive and not a compulsory measure; that is to say, assuming the Bill were passed in its present form, an architect need not go on to the register. He can still practice as an architect and call himself "architect." In fact, the Bill will not prevent the quack from calling himself an architect; he can practise as an architect, undercut the fees of the genuine architect, advertise and tout for work, and generally eschew rules of professional conduct without let or hindrance. Pains and penalties are reserved for "registered" persons, who will pay for the "privilege" of being registered.

In the opinion of my Council it is the title "architect" that should be safeguarded, and a Bill that does not provide for such protection is useless to the architectural profession and the public served by that profession.

Architects are being asked to write to Members of Parliament inviting the latter to support the Bill; may I suggest that architects first make themselves acquainted with the provisions of the Bill and then insist that the title "architect" be reserved for those who are qualified to use it?

G. B. J. ATHOE
(Secretary, Incorporated Association of Architects and Surveyors)

An Architect's Claim for Fees

SIR,—I have read with interest the "Law Report" in the December 17 issue of the JOURNAL on the case of *Adamson* v. *Purkis*.

There are two lessons which the case seems to teach. One is the great benefit of the proposed revision by the R.I.B.A. of the clause providing for payment for unexecuted work. Where the payment on this point has hitherto been definitely laid down, an architect has been in the difficult situation of being bound by his "trades union" rate to charge a certain fee for his work, although he may have thought that he was entitled to more, or even though he considered his labours merited less. I think the new *quantum meruit* basis will be a great blessing.

In the present instance, it looks to me as if the suggested R.I.B.A. amendment came to the notice of the architect between the time when he made his original claim and the date when he agreed to the final settlement.

The other lesson which one might learn is the old story of the importance of architects obtaining, at as early a stage as possible of their connection with a building scheme, a clear understanding with regard to the amount of their fees, and by whom they shall be paid.

G. VAL MYER

Professional Dignity and Advertising

SIR,—Astragal's remarks on this subject in the JOURNAL for December 17 prompts me to send you a copy of a circular letter issued, and also advertised in the local press by the Winchester Town Planning Architectural Sub-Committee.

The fact that practising members of the profession serve on this Committee is having the obvious effect on those who do not enjoy this privilege even if they wished to.

T. F. Y.

WINCHESTER AND DISTRICT TOWN PLANNING SCHEME
CONTROL OF ELEVATIONS TO PROPOSED NEW BUILDINGS

DEAR SIR(S),—I am instructed to bring to your notice the existence of an Architectural Sub-Committee in connection with the preparation of the above scheme.

This Sub-Committee is formed of representatives of the Rural Districts, the Chamber of Commerce, the Hants and Isle of Wight Architectural Association, the Hampshire Field Club and the Town Planning Advisory Committee.

Monthly meetings are held, at which all plans of the works within the area of the scheme are examined as to architectural treatment and general appearance. If it is considered necessary, suggestions are made to the owners of buildings that certain amendments should be made for the improvements of the elevations.

Experience so far shows that these amendments are usually the omission of meaningless features, and generally the simplification of design.

The Sub-Committee wish to work in cordial co-operation with builders and owners, and ask your support in endeavouring to improve and maintain the standard of design of new buildings to be erected. The Sub-Committee are willing to give expert advice on any plans submitted for examination.

The particular object of this letter is to invite you to submit plans for any new work you may have in mind to this Sub-Committee whilst the plans are in the pencil stage. Thus any suggestions made, which you are prepared to accept, may be incorporated in the drawing quite simply, and the finished drawing would then be ready for depositing with the Local Authority concerned. Approval by the Sub-Committee as to elevations does not in any way affect the compliance with the by-laws in the usual way. This suggestion is made with a view to saving time and expense in preparing the drawings.

Yours faithfully,
(Signed) J. S. FURLEY, CHAIRMAN,
THE WINCHESTER TOWN PLANNING
ARCHITECTURAL SUB-COMMITTEE.

Expiration of Lease

SIR,—There are many cases where one meets such people as the rebellious lessee and they require careful handling. The usual method is to pay instead of doing the work, leaving it to the new tenant to have it done as he wishes. I think if put to the test that any Court would hold that black paint would not be acceptable, although I have seen it used by a designer for the setting off of certain colours on the walls.

H. J. LEANING

COMPETITION RESULT

The awards in the competition for the development of a site fronting St. John's Lane, Queen Square and Rose Street, Liverpool, for the General Building Syndicate, Ltd., has been adjudicated by the assessors, Messrs. Duncan A. Campbell, F.R.I.B.A., and William E. Mounsey, F.C.A., as follows:

First Prize (£250), W. Pritchard, A.R.I.B.A., of West Derby, Liverpool.

Second Prize (£100), David McChleary, of Clydebank.

Third Prize (£50), L. H. Bucknell, F.R.I.B.A., of London.

The assessors, in their report, state: "In our opinion, having regard to the value of the site, none of the above schemes nor any of the other schemes submitted would be a financial success."

The designs, with the names of the authors attached, will be exhibited, together with the assessors' award, between the hours of 11 a.m. and 4 p.m. from December 31 to January 3, 1931, at No. 20 St. John's Lane, Liverpool.



Figure one. An aerial view of the densely - populated Vasastaden estate, Stockholm, which awaits reconstruction, showing the crowded existing buildings of irregular heights and plans (see also figures five and six).

FLATS SCALED TO INCOMES

Sweden's Contribution to the Housing Problem—ii

SITE-PLANNING FOR FLATS

THE popularization of the motor car since the war has completely altered the science of town planning as it was previously understood. The requirements which emerge from a study of the traffic conditions in a modern city may be described under the three following headings :

1 : Increasing differentiation between through and local traffic and between vehicular and pedestrian traffic, with a consequent separation of housing areas from through traffic routes.

2 : Open building development instead of the old type of enclosed building, and the abolition of dark and uneconomical corner sites in building.

3 : Siting and arrangement of building development with a view to uniform daylight illumination of all dwellings, but more particularly of those on the lower floors.

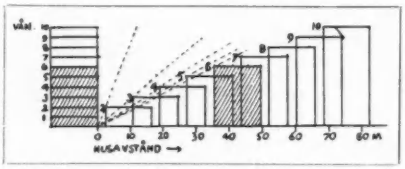


Figure two. Diagram to show variations in the heights and distances apart of houses on land, for blocks of a width of 45 feet.

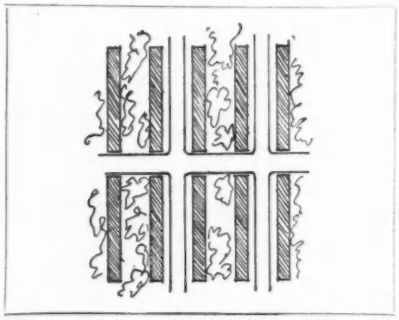


Figure three. A planning scheme for building on the "lamella" method.

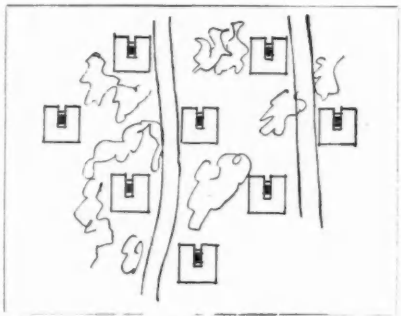


Figure four. A planning scheme for building on the "point" method.

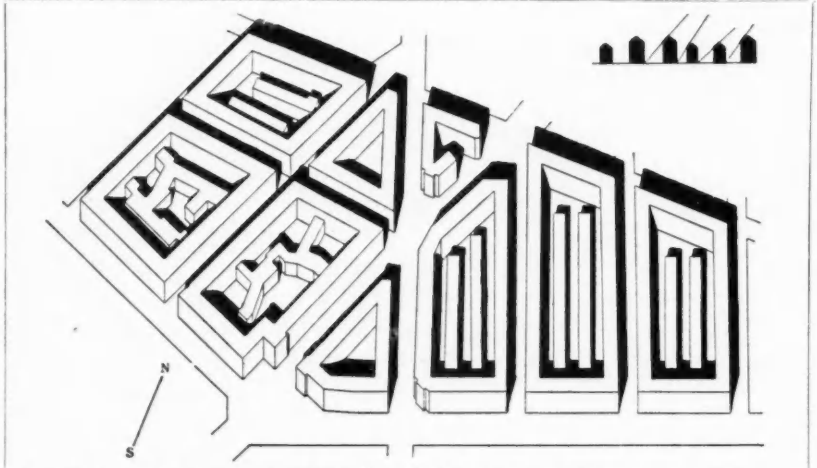


Figure five. Isometric sketch of part of the Vasastaden estate, illustrated in figure one, to show the layout of the existing buildings.

A great deal of research along these lines has been undertaken in various countries, especially in Germany. On the whole, it would appear that the most efficient type of development plan is that shown in figure three, in which the buildings take the form of long strips parallel to each other. A spotted development like that shown in figure four may also yield good results on broken-up sites. The first of these two, however, is receiving by far the greater attention in Sweden at present.

The greater part of the task involved in laying out a site on the parallel strip scheme lies in the dimensioning of the solids and voids, a purely mathematical problem in which the main factors are those of sunlight on the one hand and the cost of land on the other. The German architect, Hoenig, has introduced a system of measurement founded on what he calls the exploitation figure of the site. The meaning of this word may be explained by means of an example.

Let us take the proportion between the height of the buildings and the distance between them. If we assume the accommodation to remain constant, then this proportion will diminish as the height of the building increases and as, consequently, the number of rows of buildings on the site becomes less. In other words, the total accommodation of the site remains the same if we increase the height of the buildings and so get a greater proportion of open space between them. It is important

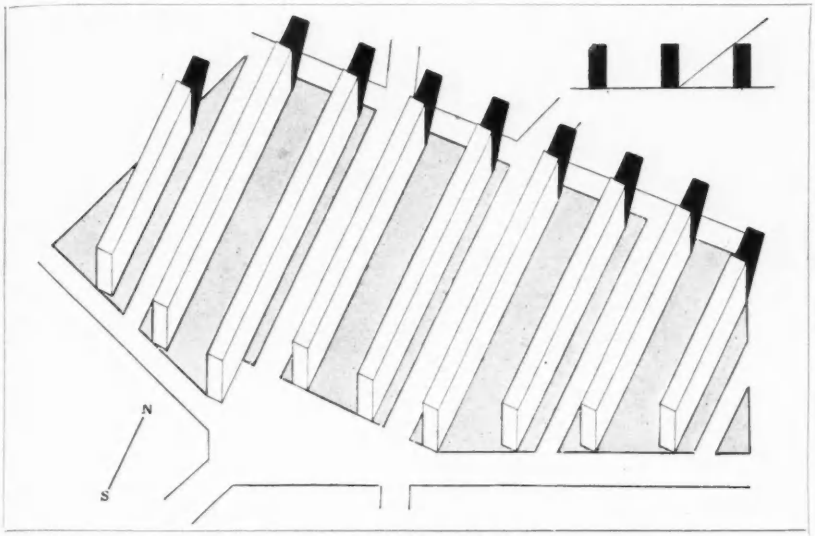
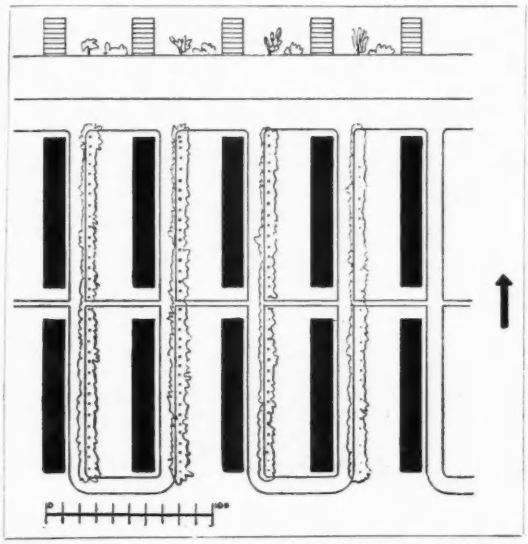


Figure six. Isometric sketch of the same area, as shown in figure five, to illustrate development on the "lamella" open system, affording the same accommodation.



Type No. 2 (see table on page 984). Site plan, to show disposition and orientation of the flat buildings.

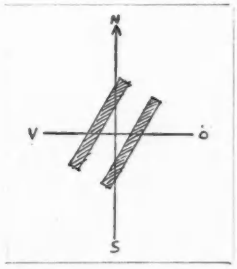


Figure seven. Scheme for the orientation of a town plan for permanent dwellings.

parts of Stockholm, the advantages of the new scheme compared with the existing development are nevertheless conspicuous.

The depth of buildings is a question which cannot be disassociated from that of aspect. It has been laid down that the ideal type of flat is that which stretches right across a building and has windows on two opposite fronts. The building depth of 49–52 ft. now common in Stockholm does not allow of any but the largest types of flats being planned in this way. The question of cost makes it impossible for the smaller types to reach across the whole depth of the building: unfortunately, a large proportion of these flats will always remain of the one-sided type. For this reason the strips of building should run from north to south, so that equal amounts of sunlight may be obtained on each side. With a through type of flat a greater latitude of planning is allowable. Figure seven shows the angle most favourable for a building containing flats of this type.



Type No. 2. Plan of a single flat (Gunner Sundbärg, architect): (1) Living-room; (2) bedroom; (3) bathroom; (4) kitchen.

to notice in this connection that in the United States the density figure has not remained constant, but has been allowed to rise proportionately with the height of buildings, thus reducing instead of increasing the amount of open space.

The first figure, figure two, and the bird's-eye views five and six, have been prepared by the exhibition authorities to illustrate the principle on which their blocks of flats have been laid out. Figure six, a site in one of the Stockholm suburbs now awaiting construction, is shown covered with twelve-story blocks of flats providing the same accommodation as the crowded existing buildings shown in figure five. Though this area will in future remain, as it is now, one of the most densely populated



Type No. 2. The living-room (1), looking towards the balcony. The farthest window lights the sleeping apartment

TABLE B (FLATS).

Type No.	No. of persons (children under 13 reckoned as ½).	Total household income.	Rent.
		£	£
1	1	*circa* 165	34–38
2	1–2	165–220	38–47
3	1–2	198–275	49–60
4	2–2½	165–220	41–49
5	2–3	192–330	55–66
6	2–3	248–385	66–77
7	2–3	220–303	60–71
8	2–3	330–495	82–93
9	3–4	275–385	66–71
10	3–4	385–660	93–110
11	4–4½	248–385	60–71
12	4–5	385–660	88–104
13	6	440–826	110–132
14	2½–3½ (including servants)	440–826	110–132
15	5–6 (including servants)	605–826	132–154

Table to show typical flats, with accommodation and costs (reprinted from last issue).

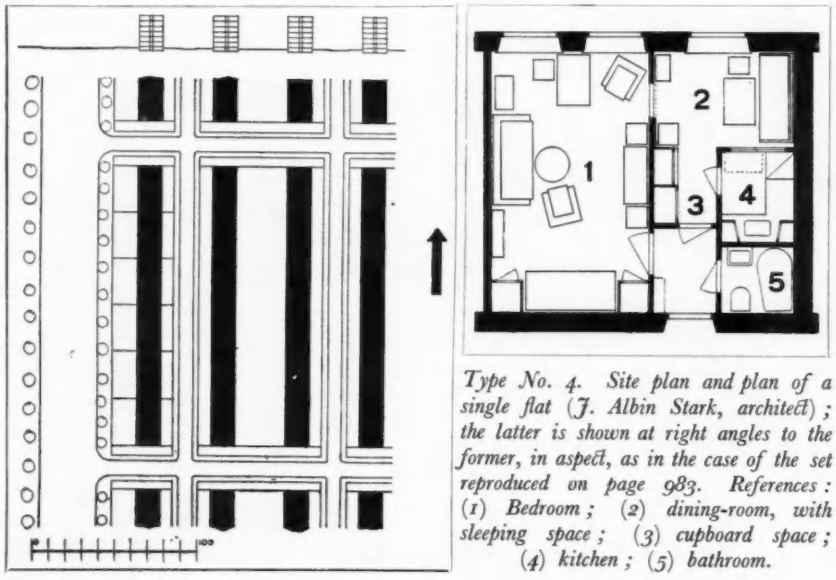


Type No. 4. The L-shaped combined dining-room and sleeping compartment (2 on plan below), seen from the cupboard end. The sleeping couch is behind the dining table.

Experiments carried out in Germany have shown that, though the hours of sunlight are longer on one side than the other, buildings so placed receive an equal amount of solar heat on both fronts.

ESTIMATES AND COSTS

The cost of all the dwellings was worked out by the committee of architects assisted by a well-known Stockholm firm. The cost of plumbing, electrical wiring, etc., was calculated on an actual six-story block of flats recently erected in Stockholm. For purposes of costing, all kitchens and bathrooms were reckoned to be similarly equipped, and any individual arrangements suggested by competing architects were left out of account. The kitchens were furnished with a marble-topped shelf and gas-cooker, but refrigerators, very common in Sweden, were not included. Bathrooms were taken to contain a tiled floor and dado, and to have walls finished with oil paint. For all rooms, including the kitchen, a hard wood-block flooring was allowed and the walls were taken as uniformly papered, with the exception of the kitchen and bathroom, which were painted. The calculated rental value of individual houses was worked out on a minimum basis of 8½ and a maximum of 10 per cent. of the total cost of construction—limits arrived at after elaborate actuarial and other calculations.



Type No. 4. Site plan and plan of a single flat (J. Albin Stark, architect); the latter is shown at right angles to the former, in aspect, as in the case of the set reproduced on page 983. References: (1) Bedroom; (2) dining-room, with sleeping space; (3) cupboard space; (4) kitchen; (5) bathroom.

An examination of the building costs of various types shows unmistakably that the higher blocks of flats cost, in proportion, less to build than the lower, type 5; the lowest, a four-story block of flats, providing the least advantageous of all. The comparison between types 3 and 4 will show how equipment and fitments will affect the cost. In the first of these an area of 400 sq. ft. is planned for one person only. In the second, an area of 387 sq. ft. is provided for a family of two to three. In type 3 there are no built-in cupboards, wardrobes, or furniture of any sort except in the kitchen. In type 4 wardrobes, a china cupboard and a linen cupboard are all built in. (Type 3 is a seven-story block, comprising 6 flats on each floor, with two staircases and two lifts; while type 4 is a six-story block of flats comprising eight flats on each floor, two staircases and one lift.) An interesting fact is that type 3 works out 22 per cent. cheaper per sq. ft. of floor area than type 4.

The two types 11 and 12, in which the principal living-room has a height 50 per cent. greater than the statutory minimum, bedrooms and lesser rooms being inserted on two levels, prove these to be no more costly than the ordinary type of flat and in every way practicable.

The following calculations of the cost of installing an electrical passenger lift have been put at the disposal of the exhibition authorities by the Academy of Engineering of Stockholm. For a block of flats containing

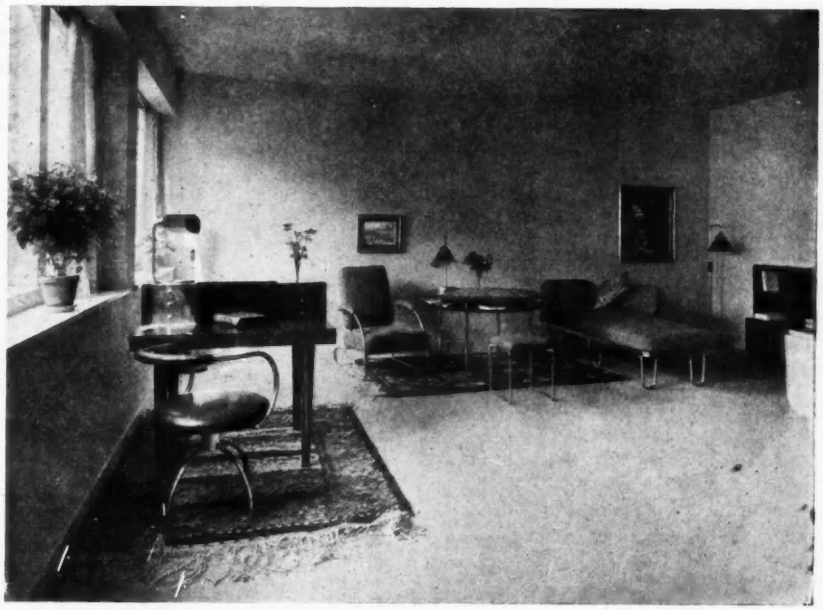
six to eight floors, the cost of putting in an automatic electrical lift to carry three passengers is £413 to £446. The extra building costs incurred in the way of engine-room, etc., amount to a further £220. The actual expenses may be calculated as follows :

	£
Power, lubrication, and other running costs	22
Repairs and depreciation at the rate of 12 per cent. on the cost of the lift	49
Depreciation at the rate of 7 per cent. on the structural accessories	17
Total annual expenditure ..	£88

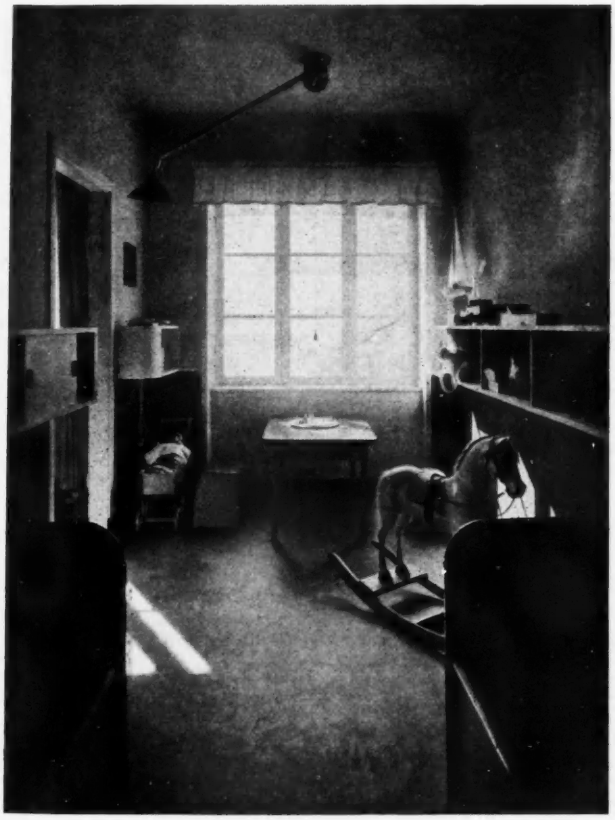
In the calculations for a building of fifteen stories and a lift to carry six to seven passengers, the total capital outlay is fixed at £1,211 and the annual expenditure at £446.

If we compare the building costs of individual houses with those of flats, we find the average cost of all the types of the latter, including types 11 and 12, is 21s., while the total cost of various types of individual houses, with the exception of type 1, is found to be 18s. 8d.

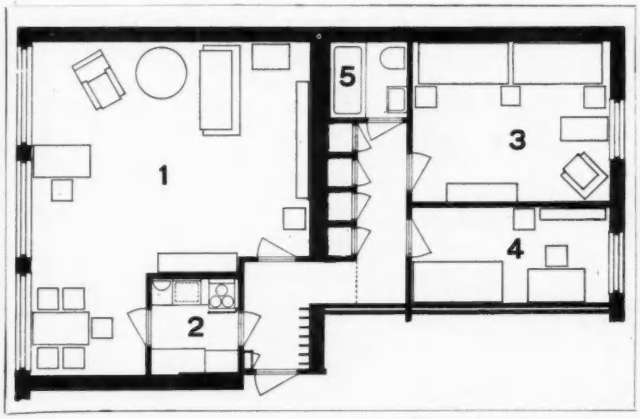
In working out the building cost of the individual dwelling-houses, it is estimated that they are all built of a timber carcase, with external rough cast for the house types 2 and 8, and internal plastering for type 8 only. For the other types, outside weather-boarding and an internal finishing of building boards have been assumed.



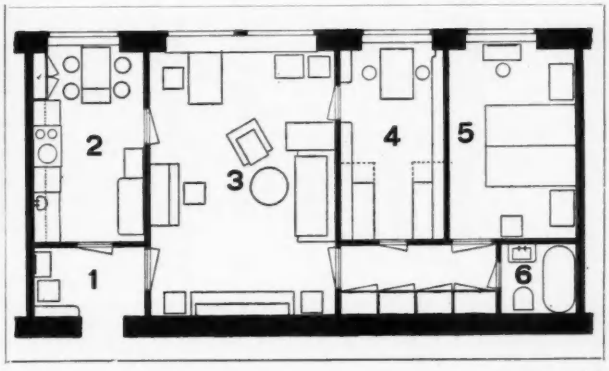
Type No. 10. The sitting-room, with dining space (1), of the flat of which a plan is illustrated below.



Type No. 8. The nursery (4) of the flat (Gustaf Clason, architect), of which the plan is illustrated adjoining. Other accommodation includes (1) Hall ; (2) kitchen, with dining space ; (3) sitting-room ; (5) bedroom for two persons ; (6) bathroom.

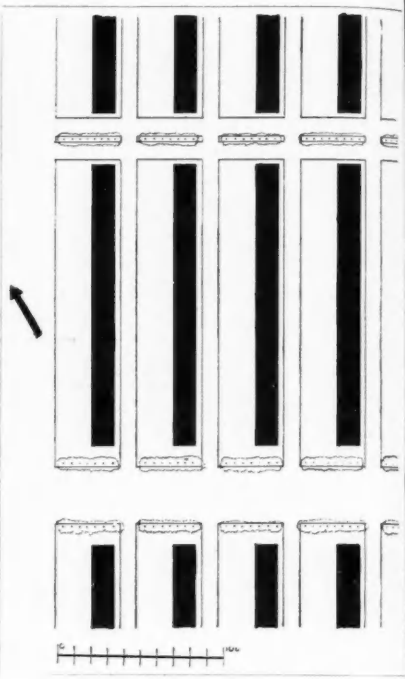


Type No. 10. Plan of the flat (Paul Hedqvist, architect). References : (1) Living-room, with space for dining table ; (2) kitchen ; (3) bedroom for two persons ; (4) bedroom for one person ; (5) bathroom.





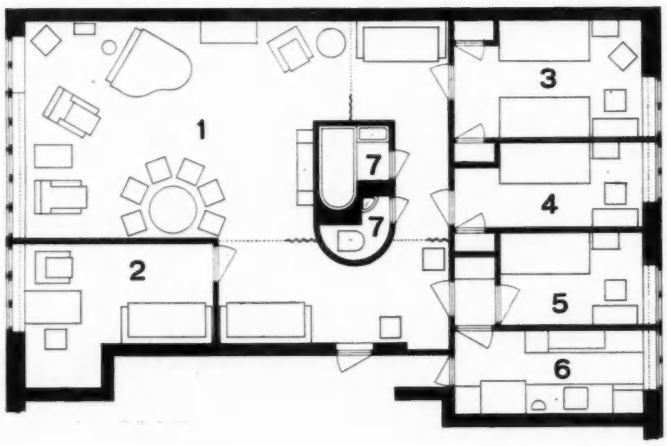
Type No. 14. The sitting-room (1) is a spacious apartment, some 25 feet long, with plenty of space for a grand piano.



FUNCTIONALISM

At a recent meeting of the Birmingham Architectural Association, Mr. R. A. Duncan, A.R.I.B.A., lectured on "The Theories of the Functionalists."

The lecturer dealt briefly with the remarkable fluctuations of fashion in the architecture of the nineteenth century. The phenomena of the rapidly-succeeding phases of this period, he explained, indicated unstable conditions. Art and artists were not to be blamed, for art was purely an expression—an effect, not a cause. Each doctrine that had been propounded had been hailed as the very truth, and each had failed to remain established for long. Until our civilization defined more clearly its objectives and beliefs, we should continue to see violent changes in the arts. It was therefore unlikely that this new movement would prove more stable in its forms than those that had preceded it.



Type No. 14. Site plan and plan of a single flat (Sigurd Lewerentz, architect). References: (1) Sitting-room; (2) writing room; (3) bedroom, two persons; (4) bedroom, one person; (5) servant's room; (6) kitchen; (7) bath and toilet room.



Apart, however, from the more extravagant claims made, something had been achieved in that its exponents had tried to relate their work to the true character of our age, with its machines, mechanized processes and artificial materials. The new generation, born with a machine in their hand, undoubtedly would show a greater appreciation and understanding of this functional architecture than was possible to most of us, who were romanticists for ever looking backward.

Type No. 14. The writing room (2) is L-shaped, and occupies one corner of the flat.

LAW REPORTS

ASSESSMENT OF FLATS—COURT OF APPEAL'S JUDGMENT

Towle v. *Improved Industrial Dwellings Co., Ltd. The Company* v. *Towle. Johnstone* v. *Consolidated London Properties, Ltd. Court of Appeal. Before the Master of the Rolls, and Lords Justices Slesser and Romer*

THE Court delivered its reserved judgment in these appeals, which decided important points in regard to assessment of blocks of flats in London.

In the first appeals, that of Towle, Inspector of Taxes, against the company, and the cross-appeal, the matter referred to a block of artisans' dwellings around Morrison Buildings South, Commercial Road, Whitechapel. The contention on behalf of the Crown was that the unit of assessment was each group of flats, notwithstanding that they were within the area of the Valuation (Metropolis) Act, 1869, and that the amount of the assessment was the amount of assessment of each group of flats.

The company contended that each of the flats was in fact and in law a separate house for all the purposes of the Income Tax Acts, and was to be assessed and charged separately.

Mr. Justice Rowlatt, who heard the case in the first instance, decided that the contention of the Crown was right and allowed the appeal.

It was from this decision that the cross-appeals came before the Court. The previous hearings have been reported in THE ARCHITECTS' JOURNAL.

Mr. Latter, K.C., and Mr. L. Tooth appeared for the company in the appeal and cross-appeals, and the Solicitor-General, Sir Stafford Cripps, K.C., and Mr. R. Hills, for the Crown.

The Master of the Rolls, in giving judgment, referred to the decision in the reported case of the Attorney-General against Mutual Tontine Westminster Chambers Association, heard in 1875, and said the question raised was whether the owners of a building let out in separate tenements to several occupiers were assessable to inhabited house duty, or whether the respective tenants of different tenements must be assessed as occupiers of distinct properties. It was held that the association must be assessed and treated as occupiers of the several blocks, which comprised in the whole one dwelling-house. It was also held that as section 45 of the Valuation Act, 1869, made the valuation list in force under that Act conclusive for the tax levied for inhabited house duty, the right way to value such a block was by aggregating the value of the several tenements appearing in the valuation list, although, owing to some suites being unlet, the list did not represent the annual value to the association. That decision was affirmed in the Court of Appeal, and if the matter rested there the Court would seem bound to hold that the assessments were rightly made.

It seemed, as said by counsel for the Crown, that the effect of the Valuation Act, 1869, was to lift out of the valuation list the values contained in it, and to place them in the assessment to be made for income tax under Schedule A; and did that despite the obvious criticism that such a transfer prevented full rebate being granted for voids and in respect of repairs.

But it was necessary to turn to Rule 8 (c) of No. VII. of Schedule A of the Income Tax Act, 1918. The words were that the assessment should be made on the landlord in respect of:

> (c) Any house or building let in different apartments or tenements and occupied by two or more persons severally. Any such house or building shall be assessed and charged as one entire house or tenement.

The short point therefore in the case was whether that rule was one which related to the ascertainment of the value of the lands or tenements. Rightly or wrongly, the Court had to decide the true interpretation of complex provisions in several Acts, which were made to interact on each other. The judgment of Mr. Justice Rowlatt on the first point must be affirmed.

On the second point raised—namely, what constituted the house: whether each separate tenement, whether each group of tenements to which there was a common entrance from the street, or whether the larger building of which those groups formed part, he agreed with the judgment of Mr. Justice Rowlatt. It was a question of fact rather than of law, and one on which the Court was justified in accepting the findings of the Commissioners. The appeal failed on both points, and would be dismissed with costs.

Lords Justices Romer and Slesser concurred.

In Johnstone's case, the company appealed from a decision of Mr. Justice Rowlatt, in favour of the Crown, who heard appeals by the company from a decision of the Income Tax Commissioners in regard to eight of their flats at Linden Gardens, Notting Hill Gate. The flats were self-contained, let to separate tenants, and each had a separate front door to a common staircase, with one entrance from the street.

The Commissioners were of opinion that the income tax assessments should follow the assessments as fixed under the Valuation (Metropolis) Act, 1869, and that the appropriate deductions for repairs should be allowed in the case of each flat. They reduced the assessments on that footing.

Mr. Justice Rowlatt, who heard the case, reversed the decision of the Commissioners, holding that to make an assessment by adding together the gross valuations under the Valuation (Metropolis) Act, 1869, accorded with section 45 of that Act, which provided that the assessment value was to be the gross value stated in the valuation list and Rule 8 of No. VII. of Schedule A, which provided that any house or building let in different apartments or tenements and occupied by two or more persons severally should be assessed and charged as one entire house or tenement. Further, there was no title to the reduction claimed by the company as the amount of the assessment was less than the rent by a sum greater than the authorized.

The Court now held that the appeal from that judgment failed and dismissed it with costs.

The Master of the Rolls said it was unnecessary to give a judgment in this appeal, as the judgment in the former case covered the questions raised.

BUILDING ESTATE AT STAINES

Collinson and Stephenson v. *R. E. Bennett, & Co., Ltd. Chancery Division. Before Mr. Justice Maugham*

Questions arising out of the sale of land for development as a building estate at Staines were raised in the action by Messrs. Collinson and Stephenson against Messrs. R. E. Bennett & Co., Ltd., for specific performance of an agreement to purchase the freehold property known as The Manor House, Staines, for £2,500. Defendants alleged misrepresentation on the part of plaintiffs, and asked by counter-claim for a rescission of the contract.

The onus being on the defendants to substantiate their counter-claim, Mr. Swords, their counsel, stated that in the particulars the property was represented as being "fully ripe for development, and from every point of view formed an exceptional building estate." The property, however, was found to be useless as a building estate, because the Staines Urban District Council declined to approve any plans for its development unless a road 40 ft. wide was constructed across Shortwood Common, to give access from the public highway to the estate. There were nearly insuperable difficulties in the way of this being carried out.

Evidence was called to show that such a road could only be constructed by the passing of an Act of Parliament,

and that the Council would not pass any building scheme unless the road was constructed.

Mr. T. H. Smith, of Messrs. Brewer, Smith and Brewer, architects and surveyors, who prepared a scheme for the development of the estate on defendants' instructions, said he never contemplated any difficulty in regard to obtaining access to the estate, till told by the steward to the Manor of Staines that it was virtually impossible to get a road across the common except by Act of Parliament.

In reply to the counter-claim, evidence was called to show that the estate was one that could properly be developed as a building estate, and that the description was correct.

His lordship held that the contract was obtained by an innocent misrepresentation, by which the defendants were induced to buy the property for a building estate on the statement that it was ripe for development, whereas the agents of the plaintiffs must have known that there were tremendous difficulties in the way. He made an order for rescission of the contract, the return of the deposit, and ordered the plaintiffs to pay the costs of the action and counter-claim.

QUESTIONS THAT ARISE

Discoloured Wall Paper

R. writes: "*May I have your expert's opinion on the following three points? 1: What are the spots on the enclosed sample of wallpaper? 2: What caused them? 3: The remedy to be applied? The paper has been taken from the outside wall of a bedroom, which has three outer walls and one inside wall. The room is seldom heated. The paper was hung about May, 1929, after loose lime plaster had been removed and the repairs effected in thistle plaster (in patches only). The room then showed damp on one wall, caused by defective gutters. The walls are known to be of very poor masonry, with large holes in which there is no mortar. All three sides of outside walls were lime dashed.*

"*After papering, the weather was good for about two or three months and the walls were dry. Before the weather broke, one outer wall was rendered three coats in cement mortar and the work apparently well done. It was noted that the paper-hanger applied an excess of paste. He also applied petrifying liquid to the walls before papering. The soil of the country is impervious, giving rise to a close atmosphere on some days, and causing condensation on mirrors.*

"*All outside walls show these black spots, and the cemented portion (which was the one originally noted as damp) is no better than the remainder. It is known the gutters (one half-round iron supported on iron straps and free from the wall) still overflow. One outer wall is a gable end, and there is no gutter. There is also no leakage from the roof. The inside wall is free from these spots. Before papering, the old paper was removed from the walls, and the walls washed; but carbolic was not used in the washing. The thistle plaster portions do not appear to be any different from the rest. The conclusions come to are that the spots are not caused by the excess of paste, the petrifying liquid or condensation, or any combination of them. If the spots be of the nature of a fungus or growth it is believed the excess of paste with damp may assist the growth. Formalin was not used in the paste.*"

From a superficial examination of the sample submitted, there can be little doubt that the discoloration is due to a growth of fungoid type. The spores of moulds and organisms of this kind are widely distributed, and, given a suitable habitat, their propagation is rapid when conditions are favourable for their growth. Damp provides the essential condition, and from your correspondent's description of the state of the walls we should assume that this is the cause of the discoloration.

In a case of this sort it is desirable to correct the fundamental cause of the trouble and to prevent the further penetration of moisture from the exterior. The defective paper should be removed and burnt, and the wall should be given a thorough wash with a fungicidal agent such as phenol. It would perhaps be an advantage if the walls could be left unpapered until such time as they had an opportunity to dry out. We have not conducted experiments here, but should consider that it might be practicable to incorporate a small quantity of phenol in the paste when the room is re-papered. This should inhibit future growths of organisms of this kind, at any rate for a considerable period. P. W. BANISTER
(FOR DIRECTOR OF BUILDING RESEARCH)

Underpinning

H. E. M. writes: "*The accompanying sketch illustrates the method I propose to adopt for the base of an existing wall which is to be thickened by 4½ ins. to a height of two stories. I do not intend cutting away too much of the brickwork to the base, for this would disturb the finishing to the existing lower floor rooms. Is it absolutely necessary to build new footings and foundation to conform with the spread and depth required for a 1 ft. 6 in. wall, or could I satisfactorily widen the present foundation? The earth is of compact, loamy sand.*"

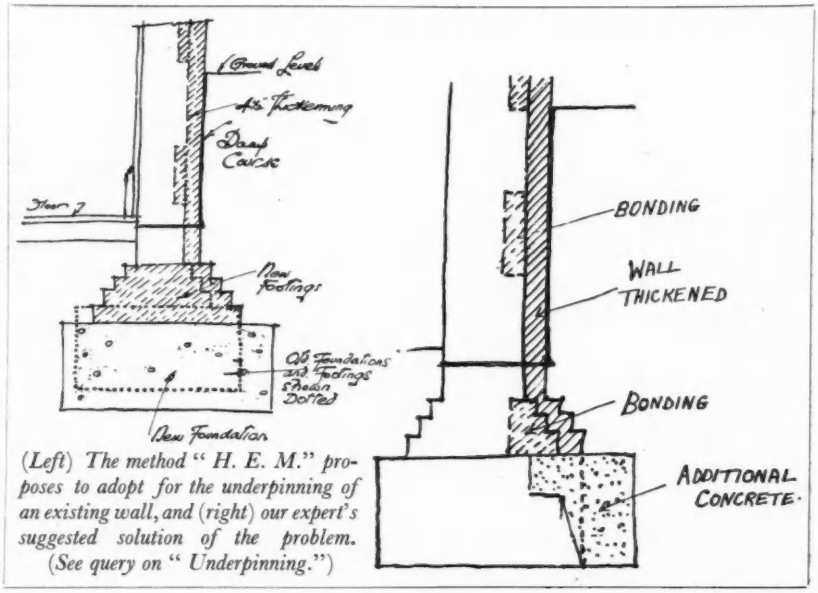
Unless the wall is properly underpinned it will be useless to try and lay a new concrete foundation in the manner suggested.

In order to cut away the existing concrete foundation and lay new concrete, it will be necessary to shore up and remove in short lengths the brick walling for at least 4 ft. above the concrete foundation, in order to give room for laying the new bed of concrete.

This will, of course, mean that the internal finishings to the lower rooms will be disturbed.

I do not think it necessary, as the earth is good, to underpin, and I suggest the work be carried out as shown on my accompanying sketch. I had work of a similar nature executed in this manner on a soil of Thames ballast.

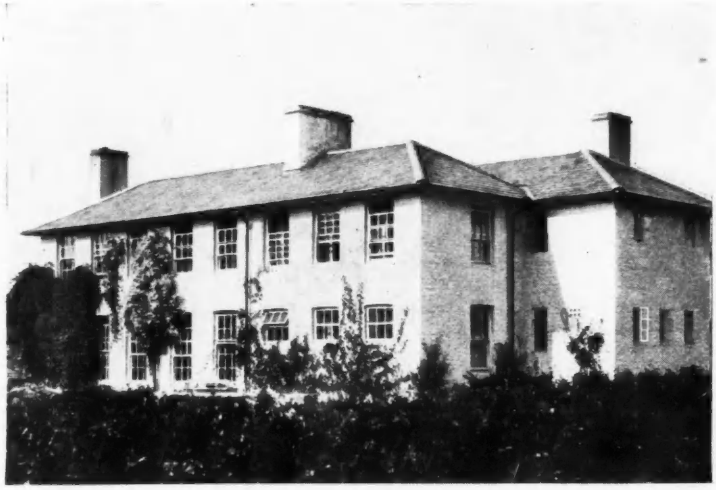
The existing concrete foundation is simply roughly cut back to a splay to form a key for the additional concrete, and the new work bonded to the old by diagonal block bonding. A. J. T.



(Left) The method "H. E. M." proposes to adopt for the underpinning of an existing wall, and (right) our expert's suggested solution of the problem. (See query on "Underpinning.")

A RUBBLE-BUILT COUNTRY HOUSE

DESIGNED BY POWYS AND MACGREGOR



A general view of the south or garden elevation. In reality, this is treated as the main front of the house, the north side, facing the road, being mainly devoted to hall and service quarters; the front door is placed at the north-west corner.

QUARRY HOUSE, The Avenue, Sherborne, Dorset, was built for a client who had been brought up in country vicarages built in the first thirty years of the last century, and therefore had an affection for that type of house. Hence its general characteristics of appearance and accommodation.

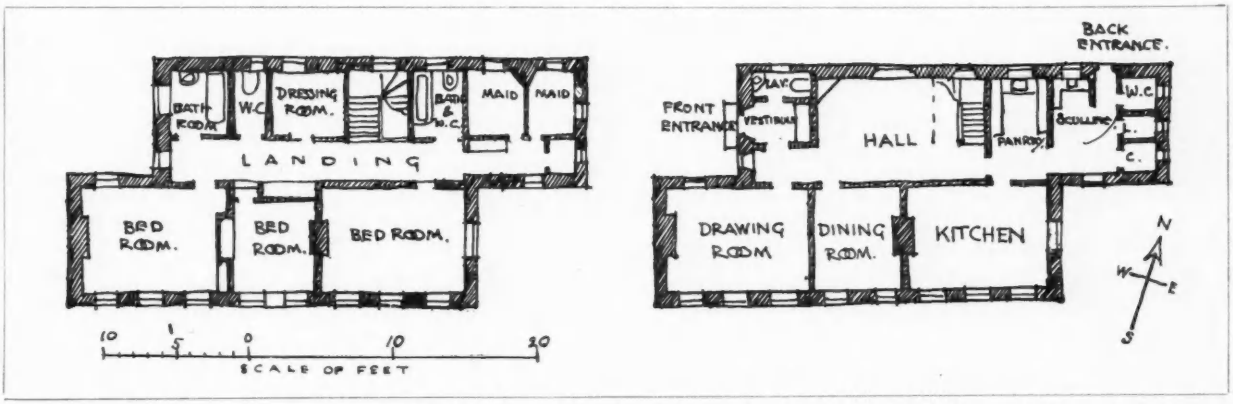
The walls are constructed of Stalbridge (Dorset) fossil-rubble stone, without quoins or dressings. So well did the masons employed understand this manner of walling, the architects have stated, that they know of no example, old or new, which surpasses these walls for strength and good building: "the texture is like the texture of a XIII-century rubble-built church tower."

The roof, which is covered with Norwegian slates, has been designed so as to be easily accessible for inspection. It has comparatively deep eaves, the top of the wall being covered with a 9-in. bed of concrete which projects beneath to form the eaves soffit. The windows to the main rooms are of the sliding sash type, divided into small panes; metal casements are fitted to the service quarters.



A near view of the front door and entrance porch, which comes in an angle of the north side and west end. The deep eaves have a 9-inch bed of concrete as soffit. The roof is covered with slates.

In laying out the plan the amenities of the site were taken into consideration. The undulating garden falls fairly sharply from the south front, on which side there are also a few trees. Accordingly, this was made the principal elevation, and a stone-flagged terrace was formed, with a retaining wall and steps leading down to give access to a sloping lawn. The result is that the three main rooms on the ground floor, and the bedrooms above, enjoy the benefit of a charming outlook.



The architects' drawings of the ground and first floors reveal planning that, though apparently simple, is the result of careful forethought. It will be noticed that the servants' quarters are concentrated and isolated on both floors.

THE SKETCH CLUB

NINETEENTH SESSION

ALL the sketchers whose work is here reproduced have previously contributed exhibits to the Sketch Club—with one exception. This is Professor S. D. Adshead, two of whose pen-and-ink illustrations for his lecture on Essex, summarized in last week's issue, were reproduced therewith; here are two more in the same medium, and also another couple, in coloured crayon.



By R. A. F. Riding (Pencil).
Kensington Church.



By George L. Boyle. (Pencil : 12″ × 9½″).
Haddiscoe Church, Norfolk.



By E. B. Musman (Pencil : 8¼″ × 12″).
At Vianden, Luxembourg.

By S. D. Adshead
(Coloured crayon : 13″ × 7″).
In Essex.



By S. D. Adshead
(Coloured crayon : 14½″ × 7¾″).
The River Crouch from Wallasea Island.





By S. D. Adshead (Pen-and-ink : 14″ × 9″).
Canvey, from Leigh.



By S. D. Adshead (Pen-and-ink : 14″ × 9″)
The Mar Dyke, looking towards Stifford.



By George L. Boyle (Pencil : 7″ × 10″).
Early Georgian Shops in West Ham Lane.



By W. E. Riley (Watercolour : 14½″ × 10½″).
A Chateau at St. Malo, Brittany.



By George L. Boyle (Pencil : 8″ × 12″).
St. Margaret's Church, King's Lynn.

LITERATURE

THE OLD BANK OF ENGLAND

THE ground-floor plan of the Bank of England discloses a tightly-welded mass of different-sized compartments betraying uncertain affinity with the lines of the encircling walls, but no clarity of expression. It might be, indeed, a slice of the crowded Roman forum for all a first glance would tell one; and like Rome it is the result of a slow accretion by more than one mind's working, of a complex organism serving many purposes under the all-embracing title of the Bank of England.

The history of the Bank is prosaic enough. It started from an idea, and by well-consolidated stages grew; and it might never have been a history to interest us had not the major task of giving form and character to the buildings, as we have known them up to this present, fallen to the lot of an architect whose original mind and strong personality place him in a niche apart from the genealogy of English architecture.

Of the earliest work of Samson, the first architect to the Bank, there are little more than records, but Sir Robert Taylor, had he left behind him nothing more than the Court Room suite, would be remembered as a designer fit to rank with the best minds of his time.

As it was, most of his work was found by Soane to be in a dangerous condition, and was demolished and rebuilt under his remarkable system of "fireproof" construction, and in a style the product of an unusual admixture of constructive ingenuity with nearly febrile imagination.

It should be remembered, when one is trying to get at the inside of Soane's work, that his great halls and the Rotunda in which seem to me to lie the innermost spirit of his design, were works of *construction* only comparable today to the work of some few architects who have made it their concern to understand their materials and use them to their best economy. Soane never underestimated. He worked out all his own bills, and had a knowledge of prices, materials and labour superior to that of any other architect of his day. That knowledge made it possible for him to rebuild Taylor's halls with four stone piers instead of sixteen columns, and to infuse his memory of the vast vaults of the Roman baths with a feeling of shell-like lightness unknown to Rome. Thus his sensibility brought grandeur again to life without a resuscitation of dead form—with what effort of brain and spirit one can but dimly guess at, not being Soane.

It is recorded of him that he made twenty alternatives for every one design finished; that he was uncertain and unsettled in every step he took. One can see this, especially outside the great halls.

It is the defect of a too sensitive imagination—unlike his cheerful contemporary Nash.

And what a wealth of imagination is gathered together in this generous collection of clear photographs and finely-lined drawings! This book is fit to stand with Professor Richardson's great work, as a more than adequate testimony to English monumental architecture.

E. MAXWELL FRY

The Old Bank of England. By H. Rooksby Steele and F. R. Yerbury. London: Ernest Benn, Ltd. Price 42s. net.

BERKSHIRE REGIONAL PLANNING SURVEY

THIS Survey has been prepared under the auspices of a committee composed of five representatives of the County Council and one from each of the town-planning authorities within the county. The technical sub-committee included all the surveyors to the authorities interested; by this means the fullest knowledge of the character of the area was made available and proposals could be studied in the light of local information. While the report is largely devoted to the recording of existing conditions as suggested by the title, it also contains a general outline of probable future developments, and of the steps necessary to provide for these.

Berkshire may be divided into two main areas, connected by a narrow neck near Reading. The smaller area to the east is largely suburban in character, while the larger one to the west is mainly agricultural and pastoral country. This latter can conveniently be divided into four parallel strips running east and west, namely, the Thames Valley, the Vale of the White Horse, the Berkshire Downs, and the Kennet Valley. With the exception of extensive pastoral areas on the Downs, these districts are mainly agricultural, but there is also some forest land. It is suggested that industries might



Pendentives and lantern in the Colonial office, the Bank of England, Threadneedle Street, E.C. Sir John Soane was the architect.

[*From* The Old Bank of England. *By H. Rooksby Steele and F. R. Yerbury*]

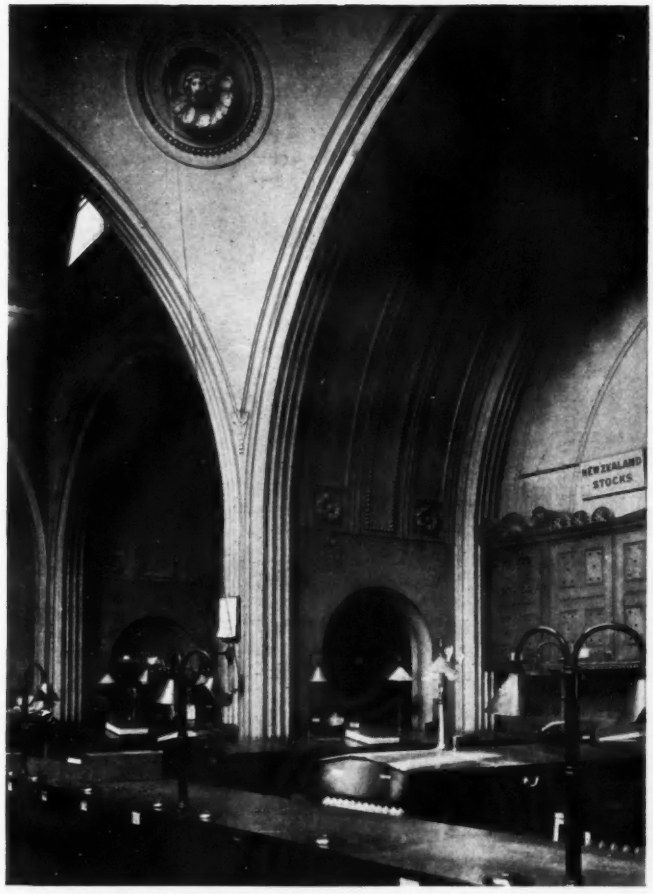
appropriately locate themselves around Wantage and Newbury, but in general no very drastic changes are anticipated.

An important consideration in a district possessing such interesting natural features as western Berkshire is the preservation of these from injurious developments; the report recommends as essential the reservation of the river banks and the escarpments of the Downs. The uplands are generally described as of "national importance," while specially selected areas are included in one or other of these categories. Features of archæological interest are also scheduled and the necessary steps for their preservation recommended.

Modern developments such as roads, aerodromes, and other public services receive careful consideration, and the report deserves especial commendation for the well-selected illustrations and the very clear and explicit series of maps. H. V. LANCHESTER

The Berkshire Regional Planning Survey. By W. R. Davidge. Reading: Bradley and Son.

The north-east angle of the Colonial Office, the Bank of England, Threadneedle Street, E.C. Sir John Soane was the architect.



From The Old Bank of England. *By H. Rooksby Steele and F. R. Yerbury.*

SOCIETIES AND INSTITUTIONS

R.I.B.A. COUNCIL MEETING

FOLLOWING are some notes from the minutes of a recent meeting of the R.I.B.A. Council:

Librarian and Editor: Mr. E. J. Carter, B.A.(CANTAB.), A.R.I.B.A., was unanimously appointed Librarian and Editor in succession to Mr. Rudolf Dircks on the latter's retirement.

The Honorary Associateship: It was unanimously agreed to nominate Mr. Rudolf Dircks and Sir Leslie Scott, K.C., for election as Hon. Associates.

Housing Work Panels: A scheme for the establishment of Housing Work Panels was approved and referred to the Allied Societies for their comments. It was agreed to ask Mr. R. T. Longden, F.R.I.B.A., the author of the scheme, to start the Panel in North Staffordshire with the least possible delay.

Revision of the R.I.B.A. Scale of Professional Charges: The comments and criticisms received from members upon the draft revised Scale of Charges were submitted to the Special Committee on the Scale of Charges for consideration and report.

R.I.B.A. Prizes for Secondary Schools: On the recommendation of the Board of Architectural Education, it was decided to increase the value of the R.I.B.A. Prizes for Secondary Schools from £5 to £10 10s.

The Court of Governors of University College, Hull: Mr. F. J. Horth, F.R.I.B.A., was reappointed to represent the R.I.B.A. on the Court of Governors of University College, Hull.

The International Congress of Architects, Budapest: A cordial message of thanks was sent for the hospitality offered by the Hungarians to the British members of the Congress.

The Registration Committee: Lt.-Col. P. A. Hopkins was appointed a member of the Registration Committee in the place of the late Mr. W. Gillbee Scott.

The Town Planning and Housing Committee: Mr. Arthur Crow was reappointed a member of the Town Planning and Housing Committee.

Membership: Election, November 3, 1930.—Applications for membership were approved as follows: As Hon. Fellows, two applications; as Hon. Associates, two applications; as Hon. Corresponding Member, one application; as Fellows, forty-five applications; as Associates, 102 applications; as Licentiates, sixty-five applications. *Reinstatement.*—The following ex-members were reinstated: As Licentiates: Messrs. Peter Frederick Binnie, Arthur Albert Messer, Eric Alexander Sutherland.

Applications for Election as Licentiates under Section III (f) of the Supplemental Charter of 1925: Two applications were approved.

Resignations: The following resignations were accepted with regret: Messrs. Percy Frank Hockings, A.R.I.B.A., John Halstead Waterworth, L.R.I.B.A.

AUSTRALIAN ARCHITECTS' GREETINGS

The President of the R.I.B.A. has received the following cablegram from the President of the Royal Australian Institute of Architects:

FIRST ANNUAL MEETING OF ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS AT MELBOURNE SENDS GREETINGS TO MOTHER INSTITUTE OF EMPIRE.

Blackett President

WELSH SCHOOL OF ARCHITECTURE

At a meeting of the Welsh School of Architecture held at the Cardiff Technical College, Principal Charles Coles, B.SC. (LOND.), presiding, a presentation was made to Mr. R. H. Winder, M.A., A.R.I.B.A., on the occasion of his leaving the Welsh School of Architecture to take up a position as Head of the School of Building in the Technical College at Leeds.

Mr. H. J. Hughes spoke on behalf of the students; Mr. Lewis John, M.A., B.ARCH., A.R.I.B.A., on behalf of the staff; while Mr. H. Norman Edwards (Chairman of the Central Branch of the South Wales Institute of Architects),

and Mr. C. F. Jones, A.R.I.B.A., spoke on behalf of the architects of the district. The presentation was made by Mr. W. S. Purchon, M.A., A.R.I.B.A.

All the speakers emphasized the importance of the work which had been done by Mr. Winder during the past ten years in helping to raise the school from very small beginnings to an Institution with the fullest recognition of the R.I.B.A., and one which had already produced a Rome scholar.

In responding, Mr. Winder thanked the other members of the staff for the support which they had given him, and expressed the hope that the Welsh School of Architecture would continue to develop.

FRENCH MEDIÆVAL ARCHITECTURE

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts, London, dealt with French mediæval fortified towns, castles, country houses, hotels-de-ville, palaces and hospitals, which, he said, involved the study of a different aspect of social and political life to that called forth by the cathedrals and churches. He pointed out that mediæval architecture was not confined to ecclesiastical buildings only, but was invariably employed in the many secular buildings which were constructed.

R.I.B.A. STATUTORY EXAMINATION

The R.I.B.A. Statutory Examination for the office of district surveyor under the London Building Acts, and the examination for the office of building surveyor under local authorities, will be held at the R.I.B.A., London, on May 6, 7, 8 and 9, 1931.

The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is April 15.

Full particulars of the examinations and application forms are obtainable from the Secretary, R.I.B.A., 9 Conduit Street, W.1.

SCOTLAND'S SURVEYORS' ANNUAL DINNER

Sir John Gilmour, BT., was the principal guest at the annual dinner of the Faculty of Surveyors of Scotland, held at Glasgow. Mr. J. Parnie Dansken, president of the Faculty, presided.

Sir John, who proposed the toast of "The Faculty of Surveyors of Scotland," pointed out that in the Royal Charter of the Faculty, which was granted in 1913, there was recorded its past history and its high hopes for the future. The hallmark of the Faculty had been the integrity and honour of the profession, and that in public life counted for a great deal.

Mr. Dansken, responding, said it was a matter of pride to the Faculty that Scotland was the first country in the world to inaugurate a mode of measurement of its own. At the present moment these modes of measurement were being revised, and he sincerely hoped that the result would tend towards simplification. He was glad to think that the profession of quantity surveying, or measuring, was every day becoming more widely known, and he was pleased to say that the Corporation of Glasgow and its Education Committee fully recognized the Faculty of Surveyors of Scotland, and entrusted them with many of their large building contracts.

Other speakers were: Professor J. Graham Kerr, and Messrs. John Jubb, David Allan Hay, and Robert Robertson.

THE FULHAM POWER STATION

The London Society has issued the following statement regarding the proposed extension of the electricity power station at Fulham :—

"We wish most strongly to support the opposition to the establishment of one of these great stations at Fulham which is being offered on behalf of the L.C.C., the Council of the City of Westminster, and the Metropolitan Borough Councils of Chelsea and Kensington, and for the following reasons: We view with concern the proposal to increase the capacity of the existing electricity power station in Townmead Road, Fulham, so as nearly to equal the consumption of coal in the proposed new master station at Battersea, and we entirely agree with the contention put forward by the L.C.C. that if the full programme is carried out the resulting concentration of stations consuming raw coal will constitute a serious menace to the health of the inhabitants not merely of the surrounding neighbourhood but of the whole of the Metropolis, as well as to vegetation and to buildings both of stone and of brick, the main cause of trouble being the sulphur that will still be present in the products of combustion even after they have been submitted to the most efficient processes of purification. In support of this belief it has been established that serious damage to crops within an area of about a mile was caused by the modern power station at Barton, near Manchester, consuming some 500 tons of coal per day, which is only about one-quarter of the amount contemplated both at Battersea and Fulham. With regard to health, we have before us a report of the Public Health Department of the City of Glasgow, in which it is stated that, during a coal stoppage that lasted three months, deaths from diseases of the breathing organs dropped by 420 when compared with the same period of the previous year. While it is admitted that too much stress should not be laid on a single case, the figures are none the less interesting and significant.

"The principal aim of the signatories of this petition is to try and look at the situation from the point of view of London as a whole, and it appears to them that it is a wasteful policy to restore the stonework of buildings such as the Houses of Parliament and Henry VII.'s Chapel and to install non-smoke-producing apparatus in houses and offices, and at the very same time to encourage in the midst of the built-up area of London a concentration of huge coal-consuming power plants—plants, it must be remembered, that are intended to consume raw coal in unprecedented quantities.

"With regard to the elimination of sulphur, we suggest that before it is possible to decide on the success or otherwise of any measures that may be taken to effect this, a decision should be come to as to the amount of sulphur in the products of combustion that might really be considered harmless when discharged into the atmosphere. Even with an elimination of 90 per cent., some two tons a day would be available to be deposited on the surrounding neighbourhoods in damp and foggy weather.

"We anticipate that in the future definite areas in London will be set aside for development for industrial purposes, and that within certain limits no new coal-consuming plants of any description will be permitted, old ones being required to be converted within an agreed number of years.

"We therefore urge that the present proposal should be abandoned and that these great coal-consuming stations, supplemented by efficient purification plant to eliminate as much of the sulphur and grit as possible, should be banished to sparsely populated districts."

The undersigned societies and individuals wish to be associated with the London Society in the foregoing statement :—

R.I.B.A.; Dean and Chapter of Westminster; National Smoke Abatement Society; Incorporated Association of Architects and Surveyors; Chelsea Society; Curator of the Chelsea Physic Garden; Chelsea Chamber of Commerce; Commissioners of the Royal Hospital, Chelsea; Chelsea Arts Club; Metropolitan Public Gardens Association; Chelsea Gardens Guild; Barnes and Mortlake Amenities Committee; Lord Dawson of Penn; New Health Society; Sunlight League; President, Town Planning Institute; Royal Society of British Sculptors; Secretary of the Garden Cities and Town Planning Association; Trustees of the National Gallery; Society for the Protection of Ancient Buildings.

The January issue of THE ARCHITECTURAL REVIEW *will be a special number devoted exclusively to the City of New Delhi, India, planned and designed by Sir Edwin Lutyens, R.A., and Sir Herbert Baker, A.R.A., F.R.I.B.A. This issue will be published at the usual price of 2s. 6d.*

ANNOUNCEMENTS

Mr. Basil Oliver has removed to 6 Unwin Mansions, Queen's Club Gardens, W.14. Telephone: Fulham 2422.

Mr. Arthur Stratton, F.S.A., F.R.I.B.A., for some years Reader in Architecture at University College, London, has recently resigned his university and college appointments. Although he has retired to Pulborough, Sussex, where he will carry on his architectural practice and devote himself to literary work, he will be in London from time to time at his old address, 88 Gower Street, W.C.1.

In view of the important requirements of the new regulations governing the issue of driving licences and the physical fitness of applicants, the Automobile Association Legal Department will furnish a copy of the regulations, free of charge, to any motorist upon request. Applications should be made to the Automobile Association, Fanum House, New Coventry Street, London, W.1.

THE ARCHITECTS' DIARY

WEDNESDAY, DECEMBER 31
R.I.B.A., 9 Conduit Street, W.1. Last of two Christmas Holiday Lectures on Architecture for Boys and Girls. By the Hon. H. A. Pakington, A.R.I.B.A. **3.30 p.m.**

SATURDAY, JANUARY 3, 1931
Sunriset, 8.6 a.m. Sunset, 4.4 p.m.

MONDAY, JANUARY 5
R.I.B.A., 9 Conduit Street, W.1. General Meeting. Award of prizes and studentships. T. A. Darcy Braddell, F.R.I.B.A., will criticize work submitted. **8 p.m.**

TUESDAY, JANUARY 6
L.C.C. SCHOOL OF BUILDING, Ferndale Road, Brixton, S.W.4. Exhibition of work submitted by craftsmen and apprentices for the 1930 Competition organized by the National Painters and Decorators Joint Education Committee of England and Wales. 10 a.m. to 8 p.m. (Also January 7, 8, and 9.) **10 a.m.**

WEDNESDAY, JANUARY 7
LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "Cautionary Guide to Liverpool and Surrounding Country." By Clough Williams-Ellis, F.R.I.B.A. **7.30 p.m.**
INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the Engineers' Club, Albert Square, Manchester. Paper by J. Theo. Halliday, F.R.I.B.A. **7 p.m.**
INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Swedenborg Hall, 20 Hart Street, Bloomsbury, W.C.1. "Notes on the Theory of Radiant Heating." By C. G. Heys Hallett, M.A. **7 p.m.**
INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Informal Meeting. **6 p.m.**

THURSDAY, JANUARY 8
SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS. At the University, Sheffield. "Some New Buildings in Sweden and the Stockholm Exhibition." By E. R. Jarrett, A.R.I.B.A. (Tea, 5.30 p.m.) **6.15 p.m.**
INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "Thames House." By R. Travers Morgan, A.M.INST.C.E. **6.30 p.m.**

FRIDAY, JANUARY 9
INSTITUTION OF STRUCTURAL ENGINEERS. Annual Dinner to be held at the Mayfair Hotel, W.1. 6.45 for 7.15 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Some Considerations Affecting the Construction and Reconstruction of Bridges in Urban Areas." By E. R. Knight, A.M.INST.C.E. 6.30 p.m. **6.30 p.m.**

SATURDAY, JANUARY 10
Sunrise, 8.3 a.m. Sunset, 4.13 p.m.

MONDAY, JANUARY 12
ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "Modern Painters." By R. Wilenski. 8 p.m. Exhibition of Examples of Modern Painting. Until January 24. **8 p.m.**
SURVEYORS' INSTITUTION, 12 Great George Street, Westminster, S.W.1. "The Restoration of St. Paul's Cathedral." By J. E. Drower, C.B.E. (Lantern illustrations.)
ILLUMINATING ENGINEERING SOCIETY. At the British Commercial Gas Association, 28 Grosvenor Gardens, Victoria, S.W.1. General Meeting. 7 p.m. "Recent Developments in Gas Lighting." By E. L. Oughton, M.INST.GAS.E. 7.30 p.m. **7 p.m.**

TUESDAY, JANUARY 13
INSTITUTION OF HEATING AND VENTILATING ENGINEERS. London and District Branch. At the Borough Polytechnic, Borough Road, Southwark, S.E.1. "Concealed Floor Heating." By John H. Francis. 7 p.m. Manchester and District Branch. At the Milton Hall, Deansgate, Manchester. "Hot-Water Heating." By R. Thorp. **7 p.m.**
INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Ordinary Meeting. **6 p.m.**

WEDNESDAY, JANUARY 14
INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. At the Metropole Hotel, Leeds. "Some Problems in the Design of Steel Framed Multiple-Story Buildings." By V. H. Lawton. **7 p.m.**
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "English Mediæval Architecture: The Pre-Mediæval Periods." By Sir Banister Fletcher, P.R.I.B.A., F.S.A. **6 p.m.**
INSTITUTION OF ELECTRICAL ENGINEERS. Hampshire Sub-Centre. At the Municipal College, Portsmouth. Short papers will be read and discussed. **7.30 p.m.**
INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.1. Students' Meeting. **6.30 p.m.**

THURSDAY, JANUARY 15
R.I.B.A., 9 Conduit Street, W.1. Special Meeting. "Persian Art." By Arthur Upham Hope. **5.30 p.m.**
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Lecture by J. Stuart Lewis, M.I.STRUCT.E., M.I.E.E. **7.30 p.m.**
INSTITUTION OF STRUCTURAL ENGINEERS. South Wales and Monmouthshire Branch. Visit to Aberthaw and Rhos Cement Company's Works, Rhos.

SATURDAY, JANUARY 17
Sunrise, 7.57 a.m. Sunset, 4.24 p.m.
INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. Visit to liner at Liverpool.
L.C.C. SCHOOL OF ARTS AND CRAFTS. Visit to Dorman Long & Co.'s Works, Middlesbrough. (Party limited to 90.)

MONDAY, JANUARY 19
R.I.B.A., 9 Conduit Street, W.1. General Meeting. Presentation of London Architecture Medal, 1929, and medals and prizes, 1931. **8 p.m.**
INSTITUTION OF ELECTRICAL ENGINEERS. Western Centre. Annual Dinner to be held at Bristol.

TUESDAY, JANUARY 20
INSTITUTION OF ELECTRICAL ENGINEERS. North-Western Centre. Annual Dinner to be held at the Midland Hotel, Manchester.

WEDNESDAY, JANUARY 21
LIVERPOOL ARCHITECTURAL SOCIETY. Bluecoat Chambers, School Lane, Liverpool. "Bridges." By G. H. Jack, F.R.I.B.A., M.INST.C.E. **7.30 p.m.**
ARTS BUILDING, University, Lime Grove, Manchester. "Treatment of the Smaller Houses." By Herbert A. Welch, F.R.I.B.A.
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "The Mediæval Period: Plans, Vaults and Buttresses." By Sir Banister Fletcher, P.R.I.B.A. **6 p.m.**
DRAWING OFFICE MATERIALS MANUFACTURERS AND DEALERS' ASSOCIATION. Annual Dinner to be held at the Hotel Victoria, Northumberland Avenue, W.C. 6.30 for 7 p.m. **6.30 p.m.**

THURSDAY, JANUARY 22
INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. Paper by Professor J. Husband, M.ENG., M.INST.C.E. **6.30 p.m.**

FRIDAY, JANUARY 23
WEST YORKSHIRE SOCIETY OF ARCHITECTS. At the Technical College, Cardiff. First of six public lectures on "Egyptian and Western Asiatic Architecture." By Norman Culley, F.R.I.B.A. **7.45 p.m.**
INSTITUTION OF STRUCTURAL ENGINEERS. Western Counties Branch. At the Merchant Venturers' Technical College, Unity Street, Bristol. "Fatigue of Metals." By M. Morgan, B.SC. 7.30 p.m. Lancashire and Cheshire Branch. At the College of Technology, Manchester. "Structural Engineering in Modern Gasworks." By A. E. Pierce, M.I.STRUCT.E. 7 p.m. Midland Counties Branch. At the Chamber of Commerce Buildings, New Street, Birmingham. "Reinforced Construction at Bournemouth Gas Works." By H. M. Hale, M.I.STRUCT.E. **6.30 p.m.**
BRISTOL SOCIETY OF ARCHITECTS. At the Berkeley Café, Queens Road, Clifton. "Architecture in Modern Germany." By F. R. Yerbury, HON.A.R.I.B.A. **5.30 p.m.**

SATURDAY, JANUARY 24
Sunrise, 7.50 a.m. Sunset, 4.36 p.m.
INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. Fifth Annual Dinner to be held at Birmingham.

MONDAY, JANUARY 26
ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. "The Place of the Designer in Commerce." By R. P. Gossop. **8 p.m.**

TUESDAY, JANUARY 27
INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "Norman Architecture." By S. E. Whitaker, F.A.S.I. **7 p.m.**

WEDNESDAY, JANUARY 28
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "The Mediæval Period: Interiors, Exteriors and Openings." By Sir Banister Fletcher, P.R.I.B.A. **6 p.m.**
LEAGUE OF ARTS. At the Guildhouse, Eccleston Square, Belgrave Road, S.W.1. "Persian Painting." By Laurence Binyon. Chairman: Dr. Percy Dearmer. **8.30 p.m.**

THURSDAY, JANUARY 29
WEST YORKSHIRE SOCIETY OF ARCHITECTS, 62 Woodhouse Lane, Leeds. Students' Debate: "That Architecture should be State Controlled." Affirmative: P. Lingwood. Negative: E. M. Rice. **7 p.m.**

MONDAY, FEBRUARY 2
R.I.B.A., 9 Conduit Street, W.1. General Meeting. "The Decoration of Buildings." By Professor W. Rothenstein, M.A. **8 p.m.**

WEDNESDAY, FEBRUARY 4
LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "Competitions." By E. Berry Webber, A.R.I.B.A. **7.30 p.m.**
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "English Mediæval Architecture: Piers, Towers, Spires and Roofs." By Sir Banister Fletcher, P.R.I.B.A. **6 p.m.**

THURSDAY, FEBRUARY 5
WEST YORKSHIRE SOCIETY OF ARCHITECTS. Biennial Dinner. (Particulars will be announced later.)
INSTITUTION OF STRUCTURAL ENGINEERS. South Wales and Monmouthshire Branch. At the Institute of Engineers, Park Place, Cardiff. "Thames House." By R. Travers Morgan, A.M.INST.C.E.

TUESDAY, FEBRUARY 10
INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. At the Milton Hall, Deansgate, Manchester. "Panel Heating." By C. M. Oates. **7 p.m.**

COMPETITIONS OPEN

January 7.—The Incorporated Association of Architects and Surveyors invites competitive designs for a Model Petrol Filling and Service Depot. Assessors: Alfred Stephens Cross, M.A. (CANTAB.), V-P., I.A.A.S.: Edward H. Fryer, and Walter Groves. Prizes: 50 guineas, 20 guineas and 10 guineas. Smaller awards may also be made on the advice of the assessors. Full particulars, etc., are obtainable from the Secretary, the Incorporated Association of Architects and Surveyors, 1 Wilbraham Place, London, S.W.1. Latest date for submission of designs: January 7, 1931.

January 10.—The Bermondsey B.C. recently invited competitive designs for a proposed new medical clinic in Tower Bridge Road, S.E. Premiums: £250, £150 and £50. Designs should be submitted to E. Goff Clark, Town Clerk, Town Hall, Spa Road, Bermondsey, by January 10, 1931.

January 15.—The Committee of the Foundation Hospital and the Rectorate of the Royal Yugoslavian University of Zagreb invites competitive designs for the general rebuilding plans of the Foundation and Clinic Hospital of Zagreb. Prizes: 1st, 20,000 Swiss francs; 2nd, 15,000 Swiss francs; 3rd, 10,000 Swiss francs. 15,000 Swiss francs have been set aside for any further work which may be required. Latest date for submission of designs: January 15, 1931.

January 31.—The Coventry Corporation invites architects to submit competitive designs for a new Hospital for Infectious Diseases. Architects competing must be established in private practice. Assessor: E. Stanley Hall, M.A., F.R.I.B.A. Premiums, £300, £200 and £100. Particulars may be obtained from Frederick Smith, Town Clerk, Council House, Coventry, until January 31. Deposit £1 1s. Latest date for submission of designs: April 30, 1931.

February 1.—The Norwich Corporation invites architects practising in the County of Norfolk to submit competitive designs for a proposed new fire station to be erected on a site in Bethel Street, Norwich. Conditions of the competition are obtainable from Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit, £1 1s. Latest date for submission of designs: February 1, 1931.

February 12.—Messrs. Venesta, Ltd., invite practising architects and designers to submit preliminary designs for a stand at the Building Trades Exhibition at Manchester. Assessors: Messrs. Christian Barman, H. de C. Hastings, W. L. Wood, Henry Rutherford, and Professor A. E. Richardson. Premiums: 1st, £100, and £10 each to the four competitors placed next in order. Full particulars may be obtained from the Editor of THE ARCHITECTS' JOURNAL, 9 Queen Anne's Gate, S.W.1, or direct from Venesta, Ltd., Vintry House, Queen Street Place, London, E.C.4. Latest date for submission of designs: February 12, 1931.

April 1.—An international competition, for the development of the uses of aluminium and its alloys, open to inventors of any nationality, is to be held annually by the International Aluminium Bureau. The competition will be divided into two sections. The prizes to be awarded are 25,000 French francs for the entries under Sections A (methods of working or using the metal) and B (manufacture of articles therefrom) respectively, and 50,000 French francs to the author of a suggestion which has exceptional interest or value under either section. Entries may be submitted between January 1 and April 1, 1931. Full particulars are obtainable from the Bureau International de l'Aluminium, 23 bis, Rue de Balzac, Paris, France.

TRADE NOTES

The Trussed Concrete Steel Co., Ltd., in accordance with long-standing custom, held their annual conference during the second week in December. The weightier matters of the fourth day disposed of, the Truscon Sports Club, which is responsible for the lighter side of the company's activities, held their annual dinner and dance in the evening. On Friday, December 12, the head office principals and the provincial managers were the guests of the directors at a dinner. Here several tributes were paid by the provincial managers and others to the unique and inspiring spirit of co-operation which existed between themselves and the directors, one speaker in particular emphasising his appreciation of the atmosphere of sympathetic understanding of their individual problems and difficulties. It was the general feeling of all the members of the Trussed Concrete Steel Company's executive staff that they were something more than mere ciphers in a highly efficient organization, but were rather a smoothly-working happy team under the captaincy of executives of real foresight and zeal, tempered by a human outlook. In reply, the directors stated that for their part they hoped that this "happy family" atmosphere of enthusiastic efficiency would always be maintained. They were confident that the policy of a definitely helpful and accessible directorate was the finest possible means of ensuring the continued progress of the company. The party rounded off another altogether delightful evening at the Prince Edward Theatre, London.

*

Plaster Locked to Concrete is the title of a new pamphlet issued by Messrs. Macinlop, Ltd., of Manchester, to describe a new mechanical key method which it is claimed gives an added safety factor of twenty to plaster renderings. This key has been marketed under the name of the "Ke-it" unit. It is a double-tapered bevel-edged rubber strip, which, when laid on concrete centering or form-work, results in an undercut void, which forms a hanging medium for the rendering plaster coat. It is claimed to provide a permanent key of great efficiency and to eliminate the risks attaching to shrinkage, as the key remains efficient in spite of shrinking. The value of the unit is said to be especially noticeable when used on ceilings and panels covering embedded heating installations. In this type of work a definitely permanent key which is unaffected by shrinkage is of paramount importance. In buildings containing electrical apparatus, organs and other machinery which sets up vibration, the use of the unit is claimed to give a measure of security to the plaster work which cannot be obtained by any other method. It is also said that the commonly experienced "creeping" which occurs with asphalt on vertical faces in hot weather is very appreciably reduced by the use of the "Ke-it" strip. The most economical method of using the "Ke-it" strip is to place it in the "Ke-it" strip envelope before application. It can then be extracted easily without damage and can be used over and over again without cleaning. It may be used either on horizontal or vertical centering. Used horizontally it is merely laid on the centering, without attachment. For vertical use the loose ends of the paper envelope containing the strip are secured with the aid of tacks driven through a strip of waste cardboard. When required for vertical steel centering, the "Ke-it" strips may be attached with the aid of fine string.

*

Messrs. Redalon, Ltd., announce that approximately 18,000 "Bull Dog" floor clips were used in Cropthorne Court, Maida Vale, W., illustrated in THE ARCHITECTS' JOURNAL for December 17 last. These clips, it is claimed, are a most efficient and economical method of obtaining strong, silent floors, and at the same time reduce the dead load by 18 lb. per square foot of floor area.

*

The Mersey Docks and Harbour Board have accepted the tender of Messrs. Dorman, Long & Co., Ltd., of Middlesbrough and London, for the supply and erection of three rolling bascule bridges at Liverpool, the inclusive price being £96,969. Two of the bridges will carry railway and road accommodation and have openings of 70 ft. 3 ins., and the third will have road accommodation only and an opening of 51 ft. Work on these bridges will start immediately. The stipulated contract time for completion is nine months.

THE BUILDINGS ILLUSTRATED

Following is a list of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :

Whitelands College, Putney, S.W. (pages 968, 971–975). General contractors, John Garlick (1910), Ltd. Sub-contractors: J. L. Green and Vardy, Ltd., special joinery, furniture, library panelling and carving, carved stalls in chapel; Ragusa Asphalte Paving Co., Ltd., asphalt; Trussed Concrete Steel Co., Ltd., reinforced concrete engineers; Ames and Finnis, bricks and roof tiles; Portland Stone Co., stone; Moreland, Hayne & Co., Ltd., structural steel; Acme Flooring and Paving Co. (1904), Ltd., woodblock flooring; G. N. Haden and Sons, Ltd., central heating, boilers, electric wiring, electric light fixtures, bells, telephones; Davis Gas Stove Co., Ltd., gas fixtures; Jas. Reekie and Sons, plumbing; Leeds Fireclay Co., Ltd., sanitary fittings; Nicholls and Clarke, Ltd., door furniture; Xelite Plaster Co., Ltd., plaster; Yetton Safe Co., Ltd., metal work; J. Whitehead and Son, Ltd., marble; Bennet Furnishing Co., Ltd., furniture and school fittings ; Associated Purchasers, Ltd., furniture ; John Garlick (1910), Ltd., and S. Elliott and Sons, Ltd., joinery and church fittings ; Watts & Co., Ltd., church fittings ; Jas. Gibbons, Ltd., cloakroom fittings ; Express Lift Co., Ltd., lifts.

The Black Horse, Northfield, near Birmingham (pages 976–978). General contractors, J. and A. Brazier, Ltd., who were also responsible for the plumbing. Sub-contractors : J. F. Booth and Son, stonework; King's Heath Guild, carvings and modelled plaster; Freemans and C. A. Fellowes, stone slate roofing; W. and H. Pearson, plaster; Stratford - on - Avon Guild, ornamental heads; Doulton & Co., Ltd., sanitary fittings; Maw & Co., Ltd., tile paving; Gaskell and Chambers, bar fittings; Horrell and Bowman, ironmongery; Haywards, Ltd., pavement lights; Waygood-Otis, Ltd., electric lifts; Midland Heating and Ventilating Co., heating and ventilating; Thomas Glover, electrical work; Ingram and Kemp, electrical fittings; J. R. Pearson, Ltd., swing sign; Arthur Brett and Sons, furniture; B. P. Venn, carpets; Middleton and Wallis, garden furniture; Bakers, garden contractors; Harvey and Ashby, leaded lights and glass; Kean and Scott, curtains; C. Creedon and Sons, gas; Marley Bros., iron gates; Lightfoot Refrigerator Co., refrigerator; Chas. Wade & Co., steelwork.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office. All inquiries concerning inventions, patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

36902. Carson, N. B. Reinforced concrete structures. December 8.

37196. Mackenzie, K. D., and Phillips, T. Stair structures. December 10.

37299. Beeson, S. E., Hurden, A. P., and Hurden, E. Tiled roof coverings for buildings. December 10.

37636. Stent, D. H. Spacers for concrete pile reinforcements. December 13.

37689. Debougnie, E. E. Roofs, etc. December 13.

SPECIFICATIONS PUBLISHED

338249. Udny & Co., Ltd., E., and Edwards, H. G. Device for use in the laying of terrazzo and mosaic floors, walls, or the like.

339304. Bohler & Co., Akt.-Ges., Geb. Walls of buildings.

ABSTRACT PUBLISHED

336093. Melville, A., and McDougall, G. C. Scaffold clamps.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICTS

Mr. Thomas Scott, architect, is preparing plans for the new secondary boys' school at Gunnersbury Lane, BRENTWOOD.

The CROYDON Corporation Housing Committee has submitted the following statement and recommends that the proposals should be submitted to the Ministry of Health as a preliminary scheme for houses to be completed during five years commencing January 1, 1931 : Mitcham Road estate, 320; Waddon estate extension, 500; Downsview Road estate, forty-two; Ham Farm estate, seventy-eight; Old Town (housing improvement area), 120; Old Town (streets improvement area), 170; sundry improvements, say, 100—total, 1,330. It is recommended further that the Minister be informed that the Council is considering the acquisition of more land for schemes under the 1924 Act, and will submit a further scheme next June.

A scheme for the transfer of the Imperial War Museum from SOUTH KENSINGTON to the site of the Old Bethlem Hospital, LAMBETH, has been accepted by the L.C.C. on the recommendation of the Parks Committee. Plans for the conversion of part of the existing buildings at Lambeth have been formulated by the Office of Works.

SOUTHERN COUNTIES

The BOURNEMOUTH Corporation is investigating the possibilities of erecting houses by direct labour.

Plans passed by the CANTERBURY T.C. : Pair of houses, Stodmarsh Road, for Messrs. Gammon & Co.; store, Sturry Road, for Messrs. Anglo-American Oil Co.; house, Old Dover Road, for Miss N. Fowler; alterations to Oporto Tavern, St. Peter's Street; alteration to premises at corner of Mercery Lane and The Parade, for Boots, Ltd.; alterations, 10 and 10a Burgate Street, for the Dean and Chapter; and a bungalow, St. Martin's Avenue, for Mr. W. S. Cozens.

The DORKING U.D.C. has approved plans submitted by the Workmen's Housing Association, Ltd., for the erection of 102 houses at the Meadowbank estate. The Ministry of Health is to be asked to sanction the scheme.

Subject to the approval of the Ministry of Health, the GRAVESEND Town Council, at a recent meeting, decided to purchase land at Denton, to carry out a housing scheme. The land in question is about thirty-one acres, and its price is £8,000. It is situated on the Chalk road, just past Denton Court and "The Nest," and extends back to the marsh.

The KINGSWOOD U.D.C. has decided to defer a definite decision on the proposed purchase of a housing site at Cheltenham Road until their next meeting.

SOUTH-WESTERN COUNTIES

The ST. AUSTELL U.D.C. is recommended by the Housing Committee to submit to the Ministry of Health tenders received for the erection of a further forty-four houses on the Polkyth site.

A housing scheme involving a sum of £500,000, a proposed new hospital at Islay and a road-reconstruction scheme at Campeltown, were matters discussed at a recent meeting of the PLYMOUTH ARGYLE County Council. A committee was appointed to further the proposal for the housing scheme.

The WEYMOUTH R.D.C. propose, if they can obtain the site, to build ten more houses at Upwey.

EASTERN COUNTIES

The SOUTHEND-ON-SEA Town Council has resolved to build a garage for buses at the London Road depot at an estimated cost, including construction of necessary approach road, of £7,400.

MIDLAND COUNTIES

Mr. W. E. Salt, on behalf of a private syndicate, has secured the Birmingham Justices' provisional approval to the erection of a new cinema in Yardley Road, ACOCKS GREEN. This new theatre will have a total seating capacity of 1,458.

The BEDFORD T.C. contemplates the erection of 500 houses during the next five years.

The COVENTRY Education Committee is to erect and furnish a school at Green Lane, at a cost of £45,000.

The HINCKLEY R.D.C. has received the approval of the Ministry of Health for the erection of thirty-two more houses at Earl Shilton.

The NUNEATON Borough Council has approved a programme for the building of 1,215 houses during the next five years.

The STOKE-ON-TRENT Corporation is recommended to borrow £14,159 for the construction of main subways, erection of water tower, etc., in connection with the new hospital scheme, and £33,543 for the erection of hospital pavilion No. 1.

NORTHERN COUNTIES

At a meeting of the City Education Committee of the CARLISLE Council the question of the proposed new Technical and Central Schools was discussed. It was eventually decided to proceed with the work, and to appoint by open competition an architect to carry out the erection of the schools.

Work on the new employment exchange in Prince Albert Street, CREWE, is estimated to cost about £10,000.

The Housing Committee of the DEWSBURY Council has prepared a scheme under the Housing Act (1930) for submission to the Ministry of Health for a five-year programme of slum clearance, and the erection of new houses. The scheme provides for the building during the next five years by the local authority of 600 houses. It is estimated also that during the same period 100 houses will be built by private enterprise. Three hundred and eighty of the houses it is proposed that the Corporation shall erect are to be set aside for the re-housing of tenants displaced as the result of slum clearance.

The LEEDS Entertainments, Ltd., have decided on a big scheme of enlargement and re-organization for the Picture House, Branch Road, Armley. Plans have been prepared by Mr. Walter Bickerton, A.R.I.B.A.

The Unemployed Grants Committee of the SUNDERLAND Corporation has granted a sum of £6,350 towards a new shelter and cloakroom on the Whitburn Road and a cloakroom on the new road near the miniature golf course, which the Corporation propose building.

The STALYBRIDGE Corporation has approved plans of alterations at the Grand Theatre.

Plans passed by the STOCKTON Town Council : Four houses, Osborne Road, for Mr. J. W. Carter; four houses, David Road, for Messrs. R. Blackett & Co.; bungalow, Newlands Avenue, for Mr. A. J. Blackett; alterations, Unicorn Hotel, High Street; four houses, Brisbane Grove, for Mr. G. Fordy; alterations, Old Stockton Arms Hotel, Hartburn; alterations, Spread Eagle Hotel; alterations, Green Bushes Hotel; two houses, Newsham Avenue, for Mr. T. W. Wintersgill.

Messrs. E. W. Chasen Ralph and Son, architects, have been appointed architects for a large elementary school, to accommodate 1,500 scholars, for the SWINTON Education Authority.

An amendment that the THORNABY Town Council's estimate of 306 houses, which are to be erected during the next five years, was insufficient to meet requirements, was passed at a meeting of the Council. The amended number is 320.

The THORNABY Town Council has passed plans for new premises in Mandale Road for the National Provincial Bank, Ltd., and for alterations to the Queen's Cinema, Mandale Road.

A scheme to provide a shelter beneath TYNEMOUTH Plaza, at an estimated cost of £6,710, has been approved by the General Purposes Committee of the Tynemouth Council.

The erection of 850 new houses is recommended as a five-years' programme, under the Housing Act, 1930, by the Housing Committee of TYNEMOUTH Corporation for the re-housing of persons who may be displaced by the carrying out of slum-area clearance schemes.

SCOTLAND

At a joint meeting of the Public Health and Housing Committees of the ABERDEEN Town Council it was decided to recommend to the Town Council a house-building scheme under the Housing (Scotland) Act, 1930, to provide for the construction of 2,400 houses.

Now that the extension of ABERDEEN Fish Market wharf, at Commercial Quay, has been completed, steps are being taken to carry out the widening of the wharf and Fish Market from Market Street to Black's Lane, at a cost of £38,000.

The BATHGATE Town Council has outlined a scheme to erect a swimming pond and baths. The scheme is estimated to cost £12,000.

The DUNDEE Corporation Works Committee has received from the Ministry of Transport the report submitted by Messrs. Mott, Hay and Anderson on the alternative proposals for a high or low level Tay Road bridge. The scheme is estimated to cost £2,100,000.

A survey on EDINBURGH's housing needs was made at a meeting of the Public Health Sub-Committee of Edinburgh Town Council. The sub-committee agreed to recommend that 1,000 houses should be provided during the next three years, and that the schemes be submitted to the Department of Health for their approval. Of these houses, 500 will be allocated for re-housing and 500 as part of slum-clearance schemes.

Plans passed by the EDINBURGH Dean of Guild Court : Twenty-four tenement houses, New Street, Gilmerton; bungalow and garage, Westgarth Avenue, Colinton, for Mr. George Cairns; bungalow, Belmont Avenue, and bungalow, 192 Willowbrae Road, for Mr. James Miller; sub-division of three houses, 234 Newhaven Road, Leith, for Mr. George Dickson; shop and house, Biggar Road, Fairmilehead, for Mrs. Jessie Williamson.

The FORT WILLIAM T.C. has under consideration the proposed purchase of sites for further houses.

The PERTH C.C. has approved a scheme for the new county buildings estimated to cost £32,300.

IRELAND

Plans passed by the DUBLIN Corporation : Additions, Sacred Heart Home, Drumcondra; reconstruction and new garages, Hollybrook Park, for Mr. L. Maguire; two cottages, O'Briens Place, for Mr. J. McCourt; houses, Pimlico, for Messrs. O'Connor and Treacy.

Messrs. Dorman, Long & Co., Ltd., of Middlesbrough and London, have been awarded the contract for the building of the new Carlisle Bridge at LONDONDERRY, Ireland. This contract, the successful tender for which amounted to £255,000, is for a steel bridge consisting of five spans of 130 ft. each and seventeen approach spans, making a total length of 1,260 ft. overall. Work will start immediately and it is estimated that the bridge will be completed in 2½ years. Approximately 6,000 tons of steel will be used, all of which will be of British manufacture throughout, being smelted in the Middlesbrough works of Dorman, Long & Co., Ltd. Work will thus be provided for North Country steel workers and also for about five hundred men on the actual site throughout the period of the contract. The engineers for the new bridge are Messrs. Mott, Hay and Anderson.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 6½	1 1½
A_1	Abergavenny	S. Wales & M.	1 6½	1 1½
B	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington	N.W. Counties	1 7	1 2½
A_2	Addlestone	S. Counties	1 5½	1 1
A	Adlington ..	N.W. Counties	1 7	1 2½
A	Airdrie ..	Scotland	*1 7	1 2½
C	Aldeburgh ..	E. Counties	1 3	11½
A	Altrincham	N.W. Counties	1 7	1 2½
B_3	Appleby ..	N.W. Counties	1 3½	11½
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2½
A_2	Atherstone	Mid. Counties	1 5½	1 1
B_3	Aylesbury ..	S. Counties	1 3½	11½
B_2	BANBURY	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4½	1 0½
A_1	Barnard Castle	N.E. Coast	1 6½	1 1½
A	Barnsley ..	Yorkshire	1 7	1 2½
B_3	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 7	1 2½
A	Barry ..	S. Wales & M.	1 7	1 2½
B_2	Basingstoke	S.W. Counties	1 4	1 0
A_3	Bath ..	S.W. Counties	1 5½	1 1
A	Batley ..	Yorkshire	1 7	1 2½
A_3	Bedford ..	E. Counties	1 5½	1 1
A_2	Berwick-on-Tweed	N.E. Coast	1 6	1 1½
A_2	Bewdley ..	Mid. Counties	1 6	1 1½
B_3	Bicester ..	Mid. Counties	1 3½	11½
A	Birkenhead	N.W. Counties	*1 9	1 3½
A	Birmingham	Mid. Counties	1 7	1 2½
A_1	Bishop Auckland	N.E. Coast	1 6½	1 1½
A	Blackburn ..	N.W.Counties	1 7	1 2½
A	Blackpool ..	N.W. Counties	1 7	1 2½
A	Blyth ..	N.E. Coast	1 7	1 2½
B_3	Bognor ..	S. Counties	1 3½	11½
A	Bolton ..	N.W. Counties	1 7	1 2½
A_3	Boston ..	Mid. Counties	1 5½	1 1
A_3	Bournemouth	S. Counties	1 5½	1 1
B_3	Bovey Tracey	S.W. Counties	1 4	1 0
A	Bradford ..	Yorkshire	1 7	1 2½
A_3	Brentwood	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 7	1 2½
B_3	Bridgwater	S.W. Counties	1 4	1 0
A_1	Bridlington	Yorkshire	1 6½	1 1½
A	Brighouse ..	Yorkshire	1 7	1 2½
A_3	Brighton ..	S. Counties	1 5½	1 1
A	Bristol ..	S.W. Counties	1 7	1 2½
B_3	Brixham ..	S.W. Counties	1 3½	11½
A_2	Bromsgrove	Mid. Counties	1 6	1 1½
C	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 7	1 2½
A	Burslem ..	Mid. Counties	1 7	1 2½
A	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W. Counties	1 7	1 2½
A_1	Buxton ..	N.W. Counties	1 6½	1 1½
A_3	CAMBRIDGE	E. Counties	1 5½	1 1
B_2	Canterbury	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 7	1 2½
A	Carlisle ..	N.W. Counties	1 7	1 2½
B	Carmarthen	S. Wales & M.	1 5	1 0½
B_1	Carnarvon ..	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford ..	Yorkshire	1 7	1 2½
B_1	Chatham ..	S. Counties	1 4½	1 0½
B_1	Chelmsford	E. Counties	1 4½	1 0½
A_3	Cheltenham	S.W. Counties	1 5½	1 1
A	Chester ..	N.W. Counties	1 7	1 2½
A	Chesterfield	Mid. Counties	1 7	1 2½
B_2	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7	1 2½
B_2	Cirencester	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 7	1 2½
A	Clydebank ..	Scotland	1 7	1 2½
A	Coalville ..	Mid. Counties	1 7	1 2½
A_3	Colchester ..	E. Counties	1 5½	1 1
A	Colne ..	N.W. Counties	1 7	1 2½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1
A_1	Consett ..	N.E. Coast	1 6½	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1
A	Coventry ..	Mid. Counties	1 7	1 2½
A_2	Crewe ..	N.W. Counties	1 6	1 1½
A_2	Cumberland	N.W. Counties	1 5½	1 1
A	DARLINGTON	N.E. Coast	1 7	1 2½
A	Darwen ..	N.W. Counties	1 7	1 2½
B_2	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5½	1 1
A	Derby ..	Mid. Counties	1 7	1 2½
A	Dewsbury ..	Yorkshire	1 7	1 2½
B	Didcot ..	S. Counties	1 5	1 0½
A	Doncaster ..	Yorkshire	1 7	1 2½
B_3	Dorchester ..	S.W. Counties	1 3½	11½
A_3	Driffield ..	Yorks	1 5½	1 1
A_3	Droitwich ..	Mid. Counties	1 5½	1 1
A	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7	1 2½
A	Durham ..	N.E. Coast	1 6½	1 1½
A_2	EASTBOURNE	S. Counties	1 5½	1 1
A_1	Ebbw Vale	S. Wales & M.	1 6½	1 1½
A	Edinburgh	Scotland	1 7	1 2½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6½	1 1½
A_2	Exeter ..	S.W. Counties	*1 6	1 1½
B_2	Exmouth ..	S.W. Counties	1 4	1 0
B	FELIXSTOWE	E. Counties	1 5	1 0½
A_2	Filey ..	Yorks	1 5½	1 1
A	Fleetwood ..	N.W. Counties	1 7	1 2½
B_2	Folkestone	S. Counties	1 4	1 0
A	Frodsham ..	N.W. Counties	1 7	1 2½
B_3	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 7	1 2½
B_1	Gillingham	S. Counties	1 4½	1 0½
A_3	Gloucester ..	S.W. Counties	1 6	1 1½
A_2	Goole ..	Yorkshire	1 6	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1
A_3	Grantham ..	Mid. Counties	1 5½	1 1
A_1	Gravesend ..	S. Counties	1 6½	1 1½
A	Greenock ..	Scotland	*1 7	1 2½
A	Grimsby ..	Yorkshire	1 7	1 2½
B_1	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX	Yorkshire	1 7	1 2½
A	Hanley ..	Mid. Counties	1 7	1 2½
A	Harrogate ..	Yorkshire	1 7	1 2½
A	Hartlepools	N.E. Coast	1 7	1 2½
B_1	Harwich ..	E. Counties	1 4½	1 0½
B_2	Hastings ..	S. Counties	1 4	1 0
A_3	Hatfield ..	S. Counties	1 5½	1 1
B	Hereford ..	S.W. Counties	1 5½	1 0½
B	Hertford ..	E. Counties	1 5	1 0½
A_1	Heysham ..	N.W. Counties	1 6½	1 1½
A_1	Howden ..	N.E. Coast	1 6½	1 1½
A	Huddersfield	Yorkshire	1 7	1 2½
A	Hull ..	Yorkshire	1 7	1 2½
A	ILKLEY ..	Yorkshire	1 7	1 2½
A	Immingham	Mid. Counties	1 7	1 2½
A_3	Ipswich ..	E. Counties	1 5½	1 1
B_3	Isle of Wight	S. Counties	1 3½	11½
A	JARROW ..	N.E. Coast	1 7	1 2½
A	KEIGHLEY	Yorkshire	1 7	1 2½
B	Kendal ..	N.W. Counties	1 5	1 0½
B	Keswick ..	N.W. Counties	1 5	1 0½
A_2	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kiddermin-ster	Mid. Counties	1 6	1 1½
B_2	King's Lynn	E. Counties	1 4	1 0
A	LANCASTER	N.W. Counties	1 7	1 2½
A_2	Leamington	Mid. Counties	1 6	1 1½
A	Leeds ..	Yorkshire	1 7	1 2½
A	Leek ..	Mid. Counties	1 7	1 2½
A	Leicester ..	Mid. Counties	1 7	1 2½
A	Leigh ..	N.W. Counties	1 7	1 2½
B_3	Lewes ..	S. Counties	1 3½	11½
A_3	Lichfield ..	Mid. Counties	1 5½	1 1
A	Lincoln ..	Mid. Counties	1 7	1 2½
A	Liverpool ..	N.W. Counties	*1 9	1 3½
A_3	Llandudno	N.W. Counties	1 5½	1 1
A	Llanelly ..	S. Wales & M.	1 7	1 2½
	London (12-miles radius)		1 8½	1 3½
	Do. (12–15 miles radius)		1 8	1 3
A	Long Eaton	Mid. Counties	1 7	1 2½
A	Lough-borough	Mid. Counties	1 7	1 2½
A_2	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7	1 2½
A_1	MACCLES-FIELD	N.W. Counties	1 6½	1 1½
B_1	Maidstone ..	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 5½	1 1
A	Manchester	N.W. Counties	1 7	1 2½
A	Mansfield ..	Mid. Counties	1 7	1 2½
B_2	Margate ..	S. Counties	1 4	1 0
A_3	Matlock ..	Mid. Counties	1 5½	1 1
A_1	Merthyr ..	S. Wales & M.	1 6½	1 1½
A	Middles-brough	N.E. Coast	1 7	1 2½
A_2	Middlewich	N.W. Counties	1 6	1 1½
B_3	Minehead ..	S.W. Counties	1 4	1 0
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7	1 2½
A	Morecambe ..	N.W. Counties	1 7	1 2½
A_2	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7	1 2½
A	Nelson ..	N.W. Counties	1 7	1 2½
A	Newcastle ..	N.E. Coast	1 7	1 2½
A	Newport ..	S. Wales & M.	1 7	1 2½
A	Normanton	Yorkshire	1 7	1 2½
A_1	Northampton	Mid. Counties	1 6½	1 1½
A	North Staffs.	Mid. Counties	1 7	1 2½
A	North Shields	N.E. Coast	1 7	1 2½
A_2	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7	1 2½
A	Nuneaton ..	Mid. Counties	1 7	1 2½
B	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 7	1 2½
A_2	Oswestry ..	N.W. Counties	1 5½	1 1
B	Oxford ..	S. Counties	1 5½	1 0½
A	PAISLEY ..	Scotland	*1 7	1 2½
B_3	Pembroke ..	S. Wales & M.	1 3½	11½
A	Perth ..	Scotland	*1 7	1 2½
A_2	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 7	1 2½
A	Pontefract	Yorkshire	1 7	1 2½
A_1	Pontypridd	S. Wales & M.	1 6½	1 1½
A_2	Portsmouth	S. Counties	1 5½	1 1
A	Preston ..	N.W. Counties	1 7	1 2½
A	QUEENSFERRY	N.W. Counties	1 7	1 2½
A_2	READING	S. Counties	1 5½	1 1
B	Reigate ..	S. Counties	1 5	1 0½
A_2	Retford ..	Mid. Counties	1 5½	1 1
A_1	Rhondda Valley	S. Wales & M.	1 6½	1 1½
A_2	Ripon ..	Yorkshire	1 5½	1 1
A	Rochdale ..	N.W. Counties	1 7	1 2½
B_1	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6½	1 1½
A	Rugby ..	Mid. Counties	1 7	1 2½
A_2	Rugeley ..	Mid. Counties	1 5½	1 1
A	Runcorn ..	N.W. Counties	1 7	1 2½
A_3	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7	1 2½
B_3	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough	Yorkshire	1 6½	1 1½
A	Scunthorpe	Mid. Counties	1 7	1 2½
A	Sheffield ..	Yorkshire	1 7	1 2½
A	Shipley ..	Yorkshire	1 7	1 2½
A_2	Shrewsbury	Mid. Counties	1 6	1 1½
A_2	Skipton ..	Yorkshire	1 6	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1
A_2	Solihull ..	Mid. Counties	1 6	1 1½
A_3	South'pton	S. Counties	1 5½	1 1
A_2	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 7	1 2½
A	S. Shields ..	N.E. Coast	1 7	1 2½
A_2	Stafford ..	Mid. Counties	1 6	1 1½
A	Stockport ..	N.W. Counties	1 7	1 2½
A	Stockton-on-Tees	N.E. Coast	1 7	1 2½
A	Stoke-on Trent	Mid. Counties	1 7	1 2½
B_1	Stroud ..	S.W. Counties	1 4½	1 0½
A	Sunderland	N.E. Coast	1 7	1 2½
A	Swadlincote	Mid. Counties	1 7	1 2½
A	Swansea ..	S. Wales & M.	1 7	1 2½
B	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH	N.W. Counties	1 6½	1 1½
B_1	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist.	N.E. Counties	1 7	1 2½
B	Teignmouth	S.W. Coast	1 5	1 0½
A	Todmorden	Yorkshire	1 7	1 2½
A	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3	11½
B	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall	Mid. Counties	1 7	1 2½
A	Tyne District	N.E. Coast	1 7	1 2½
A	WAKEFIELD	Yorkshire	1 7	1 2½
A	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7	1 2½
A_2	Warwick ..	Mid. Counties	1 6	1 1½
A_2	Welling-borough	Mid. Counties	1 5½	1 1
A	West Bromwich	Mid. Counties	1 7	1 2½
B	Weston-s-Mare	S.W. Counties	1 5	1 0½
A_2	Whitby ..	Yorkshire	1 6	1 1½
A	Widnes ..	N.W. Counties	1 7	1 2½
A	Wigan ..	N.W. Counties	1 7	1 2½
B_1	Winchester	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 1
A	Wolver-hampton	Mid. Counties	1 7	1 2½
A_2	Worcester	Mid. Counties	1 6	1 1½
A_2	Worksop ..	Yorkshire	1 5½	1 1
A_1	Wrexham ..	N.W. Counties	1 6½	1 1½
A_2	Wycombe ..	S. Counties	1 5½	1 1
B_1	YARMOUTH	E. Counties	1 4½	1 0½
B_2	Yeovil ..	S.W. Counties	1 4	1 0
A	York ..	Yorkshire	1 7	1 2½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given. The rates for every trade in any given area will be sent on request.

PRICES CURRENT

The wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard, as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 3½d. *per hour;* LABOURER, 1s. 3½d. *per hour ;* NAVVY, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* WATCHMAN, 7s. 6d. *per shift.*

	£	s.	d.
Broken brick or stone, 2 in., per yd.		11	6
Thames ballast, per yd.		10	0
Pit gravel, per yd.		15	0
Pit sand, per yd.		12	6
Washed sand, per yd.		13	0
Screened ballast or gravel, add 10 per cent. per yd.			
Clinker, breeze, etc., prices according to locality.			
Portland cement, per ton	£2	8	0
Lias lime, per ton	2	0	0
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.			
Transport hire per day :			
Cart and horse £1 3 0 *Trailer*	£0	15	0
3-ton motor lorry 3 15 0 *Steam roller*	4	5	0
Steam lorry, 5-ton 4 0 0 *Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.
RETURN, fill, and ram, ordinary earth, per yd. £0 1 6
SPREAD and level, including wheeling, per yd. 0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube . 0 10 6
TRIMMING earth to slopes, per yd. sup. 0 0 6
HACKING up old grano. or similar paving, per yd. sup. 0 1 3
PLANKING to excavations, per ft. sup. 0 0 5
DO. over 10 ft. deep, add, for each 5 ft. in depth, 30 per cent.
IF left in, add to above prices, per ft. cube 0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . 0 2 1
DO. 6 in. thick, per yd. sup. . . 0 2 10
PUDDLING, per yd. cube 1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube 1 17 6
DO. 6-2-1, per yd. cube 1 12 6
DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.
LIAS-LIME CONCRETE, per yd. cube . £1 14 0
BREEZE CONCRETE, per yd. cube . 1 7 0
DO. in lintels, etc., per ft. cube . 0 1 6
CEMENT concrete, 4-2-1, in lintels packed around reinforcement, per ft. cube 0 3 9
FINE concrete benching to bottom of manholes, per ft. cube . . . 0 3 0
FINISHING surface of concrete spade face, per yd. sup. 0 0 9

DRAINER

LABOURER, 1s. 3½d. *per hour ;* TIMBERMAN, 1s. 5d. *per hour ;* BRICKLAYER, 1s. 8½d. *per hour ;* PLUMBER, 1s. 8½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

	£	s.	d.
Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	0
Portland cement and sand, see " Excavator " above.			
Leadwool, per cwt.	£2	0	0
Gaskin, per lb.	0	0	4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 3
DO. 6 in., per ft. 0 10 3
Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

	£	s.	d.
London stocks, per M.	£4	5	6
Flettons, per M.	2	12	6
Midhurst white facing bricks, per M.	5	0	0
Multi-coloured facings, per M.	7	7	9
Best red facings, per M.	7	7	9
Rubbers, 9½ in., per M.	12	0	6
Staffordshire blue, per M.	9	5	0
Firebricks, 2½ in., per M.	9	5	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	20	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see " Excavator " above.			
Lime, grey stone, per ton	£2	11	6
Mixed lime mortar, per yd.	1	6	0
Dampcourse, in rolls of 4½ in., per roll	0	2	6
DO. *9 in., per roll*	0	4	9
DO. *14 in., per roll*	0	7	6
DO. *18 in., per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons, or equal, per rod	30	0	0
DO. in cement do., per rod	32	10	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

	£	s.	d.
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each .	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS, fair, per ft. sup. extra .	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers, gauged and set in putty, per ft. sup. extra . .	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra .	0	0	10
WEATHER pointing, do. do. . .	0	0	3
TILE creasing with cement fillet each side, per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup. . . .	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities, in finishing to steps, etc., per ft. sup. . . .	0	1	4
Jointing new grano. paving to old, per ft. run	0	0	4
Extra for dishing grano. or cement paving around gullies, each . .	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup. . . .	0	11	0
SLATE DAMP COURSE, per ft. sup. .	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. . .	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. . .	0	5	3
DO. DO. 3 in.	0	6	6
BREEZE fixing bricks, extra for each .	0	0	3

MASON

MASON, 1s. 8½d. *per hour ;* DO. *fixer,* 1s. 9½d. *per hour ;* LABOURER, 1s. 3½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour.*

	£	s.	d.
Portland Stone :			
Whitbed, per ft. cube	£0	4	6
Basebed, per ft. cube	0	4	9
Bath stone, per ft. cube	0	3	0
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super	0	11	0
York templates, sawn, per ft. cube	0	7	6
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see " Excavator," etc., above.			

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.

	£	s.	d.
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup. . . .	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup. . . .	0	4	10
JOINTS, arch, per ft. sup. . . .	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup. . .	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run . .	0	1	4
HALF SAWING, per ft. sup. . . .	0	1	0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

	£	s.	d.
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	£0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	7	6
YORK SILLS, W. & T., ft. cub. fixed .	1	10	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	3
DO. 2½ in. thick, per ft. sup. . .	0	1	6

SLATER AND TILER

SLATER 1s. 8½d. *per hour ;* TILER, 1s. 8½d. *per hour ;* SCAFFOLDER, 1s. 4½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*
N.B.—Tiling is often executed as piecework.

	£	s.	d.
Slates, 1st quality, per 1,200 :			
Portmadoc Ladies	£14	0	0
Countess	23	0	0
Duchess	32	10	0
Old Delabole Med. Grey	*Med. Green*		
24 in. × 12 in. £42 11 3	£45	1	0
20 in. × 10 in. 31 4 3	33	0	6
16 in. × 10 in. 20 18 0	22	4	9
14 in. × 8 in. 12 1 0	12	16	3
Green Randoms, per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	5	13	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	2
Cement and sand, see " Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. lap, compo nails, Portmadoc or equal :

	£	s.	d.
Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms		6 7 0
Grey-green do.		5 9 0
Green peggies, 12 in. to 8 in. long		4 13 6

	£	s.	d.
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	3	17	6
DO., machine-made do., per square	3	7	6

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

	£	s.	d.
FIXING lead soakers, per dozen .	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square . .	0	10	0
LABOUR only in laying slates, but including nails, per square . .	1	0	0

See " Sundries " for Asbestos Tiling.

CARPENTER AND JOINER

CARPENTER, 1s. 8½d. *per hour ;* JOINER, 1s. 8½d. *per hour ;* LABOURER, 1s. 3½d. *per hour.*

	£	s.	d.
Timber, average prices at Docks, London Standard, Scandinavian, etc. (equal to 2nds) :			
7 × 3, per std.	£22	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	4	6
DO., *T. and G., 1 in., per sq.*	1	4	6
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1in.	0	1	4
DO., *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	2
DO., *ft. cube*	0	14	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube .	0	4	6
DO. framed in floors, roofs, etc., per ft. cube	0	4	6
DO. framed in trusses, etc., including ironwork, per ft. cube .	0	8	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	0	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over, per ft. sup.	0	1	2

[continued overleaf

CARPENTER AND JOINER: *continued*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ¾ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded, 1¼ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring, standard blocks laid herringbone in mastic:			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¼ in., with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra, each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany, or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labour, per ft. run	0	0	1
STAIRCASE work:			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved, including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	0
If ramped, per ft. run	0	4	6
SHORT ramps, extra, each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS:			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick, and bedding, per ft. sup.	0	4	6
IRONMONGERY:			
Fixing only (including providing screws):			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

SMITH, *weekly rate equals* 1*s.* 8½*d. per hour*; MATE, *do.*, 1*s.* 3½*d. per hour*; ERECTOR, 1*s.* 8½*d. per hour*; FITTER, 1*s.* 8½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel:			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	18	0	0
Corrugated sheets, galvd., per ton	17	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	25	0	0
DO., in small sections as reinforcement, per ton	16	0	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	22	10	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

PLUMBER, 1*s.* 9*d. per hour*; MATE OR LABOURER, 1*s.* 4*d. per hour.*

Lead, milled sheet, per cwt.	£1	5	0
DO. *drawn pipes, per cwt.*	1	5	6
DO. *soil pipe, per cwt.*	1	8	6
DO. *scrap, per cwt.*	0	14	0
Copper, sheet, per lb.	0	1	0
Solder, plumber's, per lb.	0	1	0
DO *fine, per lb*	0	1	6
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in. per yd.	0	3	0
DO. *4 in., per yd.*	0	3	8
R.W.P., 2½ in., per yd.	0	1	5
DO. *3 in., per yd.*	0	1	8
DO. *4 in., per yd.*	0	2	5
Gutter, 4 in. H.R., per yd.	0	0	11
DO. *4 in. O.G., per yd.*	0	1	2½
MILLED LEAD and labour in gutters, flashings, etc., per cwt.	2	6	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ¼ in., per ft.	0	1	8
DO. ½ in., per ft.	0	1	10
DO. 1 in., per ft.	0	2	6
DO. 1¼ in., per ft.	0	3	3
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	9
DO. 4 in., per ft.	0	10	6
WIPED soldered joint, ¼ in., each	0	2	6
DO. ½ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ¼ in., each	0	11	0
DO., ½ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	4
DO. 3 in., per ft. run	0	1	8
DO. 4 in., per ft. run	0	2	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	1	6
DO. O.G., 4 in., per ft.	0	1	9
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	3	0
DO. 3 in., per ft.	0	2	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joint to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 11½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour.*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	5	0
Sand and cement, see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *white, per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Lath nails, per lb.	0	0	4
Ferrocrete, per ton	2	15	6
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	6
FLOATING in cement and sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	0
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	7
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	2
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 7½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British, ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* „	0	2	3
DO. *6 ft. sup.* „	0	2	6
DO. *20 ft. sup.* „	0	3	1
DO. *45 ft. sup.* „	0	3	3
DO. *65 ft. sup.* „	0	3	5
DO. *100 ft. sup.* „	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0
GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO., 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	4
DO. 26 ozs., per ft.	0	1	1

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span, 1*s* 6*d.* to 2*s.* per ft.

LEAD LIGHTS, plain, med. sqs., 21 oz., usual domestic sizes, fixed, per ft., sup. and up	£0	3	0

Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 7½*d. per hour*; LABOURER, 1*s.* 3½*d. per hour*; FRENCH POLISHER, 1*s.* 8½*d. per hour*; PAPERHANGER, 1*s.* 7½*d. per hour.*

Genuine white lead, per cwt.	£3	0	9
Linseed oil, raw, per gall.	0	4	6
DO., *boiled, per gall.*	0	4	9
Turpentine, per gall.	0	4	7
Patent driers, per cwt.	1	10	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	2	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	15	6
DO., *flat, per gall.*	0	15	6
DO., *paper, per gall.*	1	2	6
French polish, per gall.	0	16	0
Ready mixed paints, per cwt. and up	3	10	0
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	9
DO., subsequent coats, per yd. sup.	0	0	8
DO., enamel coat, per yd. sup.	0	1	0
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	0
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . . from 3d. to	0	0	6
Plaster-board, per yd. sup. . from	0	1	7
PLASTER-BOARD, fixed as last, per yd. sup. . . . . from	0	2	3
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including, battens, or boards, plain "diamond," per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in., punched, per M., grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casements in, but not including, wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			

PLYWOOD, per ft. sup.

Thickness	⅛ in.			¼ in.			⅜ in.			½ in.		
Qualities ...	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon												
Mahogany	4	3	3	6½	5½	4½	9½	7½	—	1 0½	10	—
Figured Oak												
1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak												
1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine...	5	4	—	6½	5	—	6	—	—	—	—	—